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JOURNAL of The IOWA MEDICAL SOCIETY

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269563

JANUARY, 1971

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10 mg chlordiazepoxide	**10-4**	**0.4 mg water-soluble esterified estrogens**

The JOURNAL of THE IOWA MEDICAL SOCIETY

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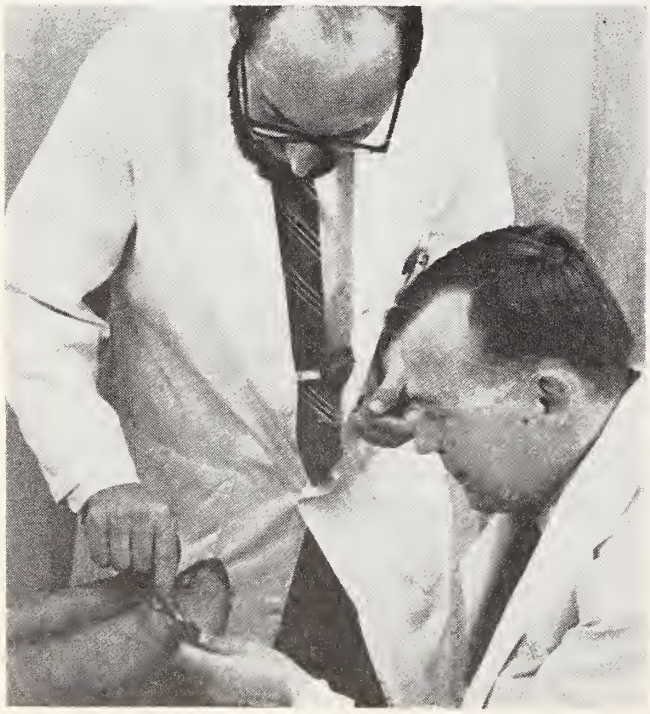
IOWA MEDICAL MISCELLANY

The IMS Executive Council has under consideration recommendations developed by the specially constituted Society Committee on MD/DO Education. The recommendations of the Committee were developed at a meeting on December 9.

The In-House Conference for Practitioners is a unique continuing education project of The U. of I. College of Medicine. Interested Iowa doctors have the opportunity at these periodic conferences to spend a brief and informal period in a selected department of the College working with faculty members. A participant in the most recent In-House Conference (November 21-22) was Paul Boone, M.D., Paullina (right below). Dr. Boone, a general practitioner, spent his time in the dermatology department. He is shown here examining a patient with Richard M. Caplan, M.D., professor of dermatology.



Most recent monthly (August, 1970) statistics for Iowa Medicaid show 20.5 per cent of the payments issued to medical doctors; the total August pay-out to MD's was $354,728. Other vendor percentages: Inpatient hospital—28.4; Pharmacies—26.7; Doctors of Osteopathy—3.8; Skilled Nursing Homes—3.7. Medicaid payments to Iowa MD's through eight months of 1970 totalled $3,182,585; the total paid to all vendors over this period was $14,740,802. Iowa MD's saw 16,035 Medicaid patients in August and presented 20,523 claims. The average cost per MD claim was $17.28.

* * *

Two projects bidding for Iowa Regional Medical Program funding have earned endorsement from the Iowa Regional Advisory Group (IRAG) and are now up for further review at the next approving level. One project from Marycrest College in Davenport is entitled, *A Self-instructional Multi-media Approach to Continuing Nursing Education.* It asks a first-year grant of $119,612. The second project proposes to train Iowa physicians and nurses in renal failure management. This College of Medicine project is seeking $81,098 in funding.

* * *

Several U. of I. medical students summarize summer experiences with the impoverished in various parts of the world in the November issue of SAMA NEWS. *The students describe their summer work in North Carolina, Maryland, Colombia and New Guinea.*

* * *

Society members will receive within the next several weeks a Social Security Administration handbook prepared especially for the reference use of physicians. The booklet contains medical evaluation criteria used by the Bureau of Disability Insurance to determine impairment, as well as other general information about the disability benefit program. A letter from Society President J. H. Sunderbruch, M.D., accompanies the handbook.

* * *

The administration of CHAMPUS (Civilian Health and Medical Program for the Uniformed Services) moves this month from the Iowa Medical Society to Blue Shield.

* * *

Edwin H. Kingery will retire as executive secretary of the Polk County Medical Society April 1. Kingery has served Polk County physicians in this capacity since 1930. He will be succeeded by Ted Sloma, currently executive director of the Polk County TB and RD Association.

Special Session

IOWA MEDICAL SOCIETY
HOUSE OF DELEGATES

10:00 a.m.
Sunday, January 24, 1971

Johnny and Kay's Hyatt House
Des Moines

This special session of the House will be for the sole purpose of considering the authorization of a Foundation for Medical Care in Iowa. The session is open to interested member physicians.

The physician's assistant was discussed at Society headquarters December 16 at a meeting of the Board of Trustees, the State Board of Medical Examiners and the Commissioner of Health. Consideration was given to the educational requirements of a person bearing this designation.

* * *

Now under consideration by the Society's Board of Trustees is a survey of Iowa physicians to determine the actual professional liability insurance picture in the state. The project would be for the purpose of compiling accurate data on malpractice cases, settlements, etc., in Iowa. The project will be submitted to the Executive Council for review and approval prior to implementation.

* * *

The ninth annual Workmen's Compensation Symposium will be March 4 and 5 at the Hotel Savery in Des Moines. Only Iowa and Florida hold these regular meetings for representatives of labor, business, insurance and the medical and legal professions.

* * *

Mrs. Hazel Lammey retires this month from full-time employment on the Society's administrative staff. She will continue to provide staff assistance on a part-time basis to the Woman's Auxiliary to the IMS.

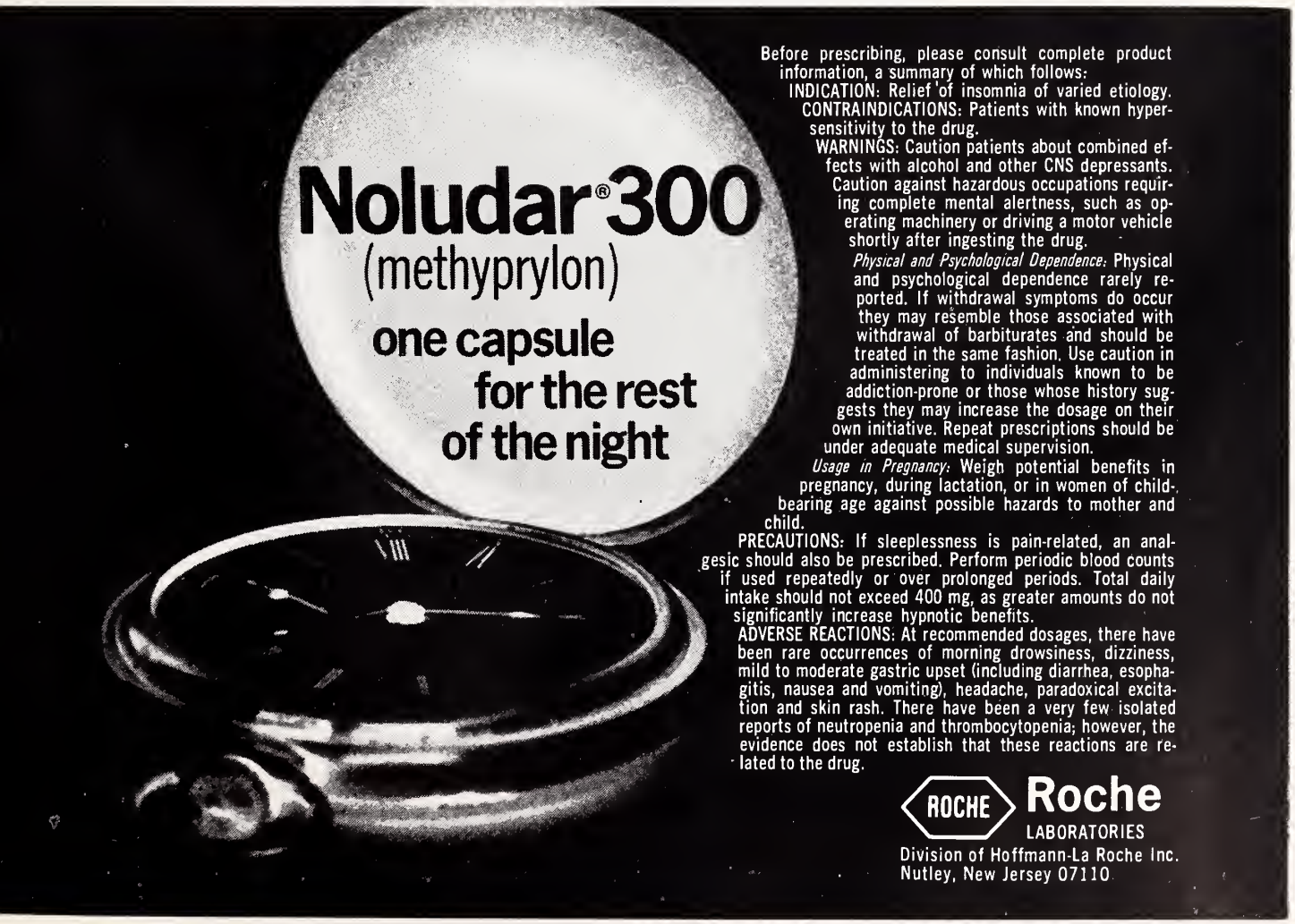
* * *

A stepped-up liaison program with state specialty groups and with the Iowa Chapter, American Academy of General Practice has been authorized by the Society's Board of Trustees. IMS administrative staff member Kent Jerome has been designated to supervise this expanded program.

* * *

The Society's Committee on Alcoholism visited and was briefed on the Alcoholism Unit of the Mental Health Institute in Independence November 18.

(Please turn on page 42)



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CONTRAINDICATIONS: Patients with known hypersensitivity to the drug.
WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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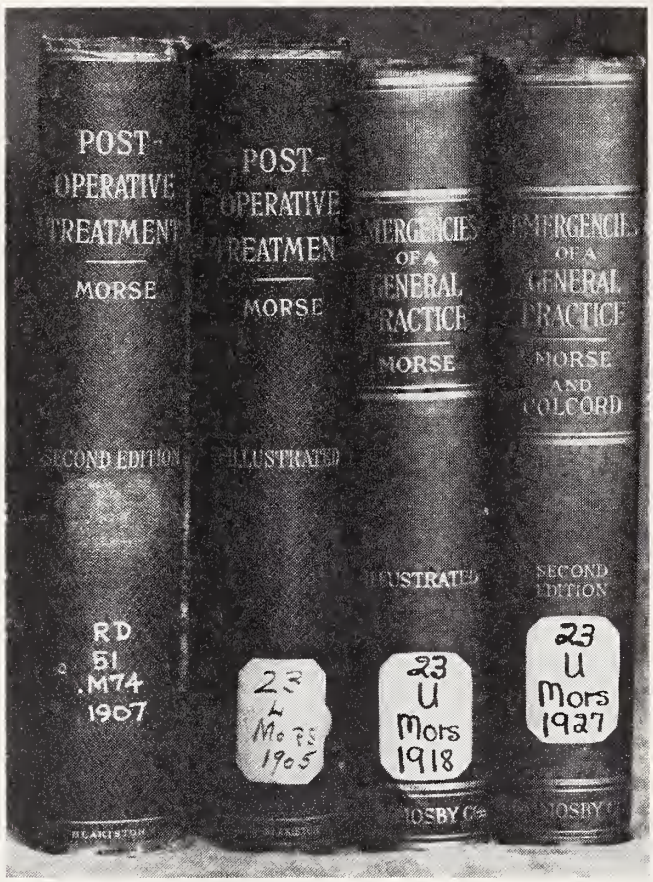
Nathan Clark Morse, Surgeon and Author, Eldora, Iowa 1877-1919



JOHN A. GIUS, M.D.
Iowa City

I FIRST BECAME acquainted with the work of Nathan Clark Morse, M.D., when I read a symposium on postoperative complications which appeared in the AMERICAN JOURNAL OF SURGERY, September, 1968. In his introductory remark to the symposium, Dr. John J. Byrne, of Boston, stated, "To the best of my knowledge, the first American textbook completely devoted to postoperative treatment was published in 1905 by Nathan Clark Morse, surgeon-in-chief, Emergency Hospital, Eldora, Iowa (Figure 1). It embraced the entire field of surgery, and he even introduced the use of the newly discovered roentgen ray in the treatment of incurable carcinoma."

My curosity was aroused for I was unable to understand how a surgeon in a small Iowa town could possibly have had sufficient experience, training or library facilities to produce such a work. I soon learned that Doctor Morse had written more than one book—he had actually written two books (Figure 2) and both of these had gone through two editions. Further, he had planned a revision of *Postoperative Treatment* which he was never able to complete because of his untimely death at the age of 62 in 1919. Altogether it seemed to me that Doctor Morse must have been a remarkable person for he apparently accomplished a great deal at a time and place where resources available to him were limited. I could only guess that he must have had a great deal of determination and dedication to have succeeded so well.

Dr. Gius is a professor in the Department of Surgery at U. of I. College of Medicine.

Read to Iowa Academy of Surgery, Mason City, Sept. 12, 1970.

I think that anyone who has undertaken to write a book will agree.

After my initial surveys of Doctor Morse's career, I concluded that it would be most interesting to pursue the matter in greater depth and to this end I contacted the late Dr. Edgar Brintnall, who practiced in Eldora for several years, to see what he could find out about Doctor Morse. He responded and on January 20, 1970, I received the following communication:

Dear John:

Dr. N. C. Morse enjoyed a large practice in Eldora and owned and ran the Eldora Emergency Hospital. Dr. Walter Bierring was a frequent consultant for Doctor Morse, coming to Eldora from Des Moines. Doctor Morse retired and sold the hospital to Dr. D. M. Nyquist about 1922. . . . At the Medical Center in Eldora, there is a copy of the book written by Doctor Morse. Interestingly, the book has apparently been owned and used by Doctor Morse and many handwritten notations are made here and there in margins which would indicate that Doctor Morse had considered a revision of the book.

Sincerely, (s) Brint

This information heightened my interest and curiosity, and I next pursued the matter in the Medical Library and Iowa Historical Library.

I found that Doctor Morse was born in Covington, Kentucky, in 1856, and was a relative of the inventor of the telegraph, Samuel F. B. Morse. He was graduated from a local college, worked in a drugstore for a time and then studied medicine at the Cincinnati College of Medicine and Surgery where he was graduated in 1877. Immediately following his graduation, he located in Eldora and began practice on his twenty-first birthday (Figure 3). He was very much interested in surgery and apparently had some postgraduate work at the College of Phy-

POSTOPERATIVE TREATMENT

AN EPITOME OF THE GENERAL MANAGEMENT OF POSTOPERATIVE CARE AND TREATMENT OF SURGICAL CASES AS PRACTISED BY PROMINENT AMERICAN AND EUROPEAN SURGEONS. TOGETHER WITH SUGGESTIONS CONCERNING THE TECHNIQUE OF CERTAIN OPERATIONS WITH A VIEW TO SECURING BETTER POSTOPERATIVE RESULTS

BY

NATHAN CLARK MORSE, A.B., M.D.

SURGEON-IN-CHIEF TO "EMERGENCY HOSPITAL," ELDORA, IOWA; DISTRICT SURGEON, CHICAGO & NORTHWESTERN AND IOWA CENTRAL RAILWAYS; EX-PRESIDENT IOWA STATE ASSOCIATION OF R. R. SURGEONS; MEMBER OF THE AMERICAN MEDICAL ASSOCIATION, PAN-AMERICAN MEDICAL CONGRESS, INTERNATIONAL ASSOCIATION OF R. R. SURGEONS, ETC.

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Figure 1. Frontispiece of the First Edition.

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BY

NATHAN CLARK MORSE, A.B., M.D., F.A.C.S.

SURGEON TO EMERGENCY HOSPITAL, ELDORA, IOWA; DISTRICT SURGEON CHICAGO NORTHWESTERN RAILWAY, MINNEAPOLIS & ST. LOUIS RAILWAY; EX-PRESIDENT IOWA STATE ASSOCIATION OF RAILWAY SURGEONS; EX-VICE-PRESIDENT, PAN-AMERICAN CONGRESS; FELLOW AMERICAN MEDICAL ASSOCIATION; MEMBER OF THE SOCIETY OF CLINICAL SURGEONS OF NORTH AMERICA; AUTHOR OF "POST-OPERATIVE TREATMENT."

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Figure 2. The second Dr. Morse book was published in 1918.

Figure 3. Photographs of Dr. Morse as a young man (1883) and in later years.

Figure 4. A page from the First Edition of "Postoperative Treatment" (1905) which illustrates the treatment of cancer of the face by irradiation.

sicians and Surgeons in New York City in 1877, or thereabouts. His practice, however, during the 42 years he was in Eldora was a general family practice with emphasis on surgery. He had no associates except during the last year or so when Dr. D. M. Nyquist worked with him. His principal assistant was a nurse named Miss Boroff who apparently was his assistant in the O.R., in the office, on his house calls and probably in much of his writing. She is well remembered by many of the old-timers in Eldora today.

In 1896 Doctor Morse built the Eldora Emergency Hospital which is located on the Public Square at a cost of $16,000. This was a 21-room building with modern operating room and later x-ray facilities. If you will remember, Roentgen discovered the x-ray only in 1895, so Doctor Morse must have been very much aware of what was going on for he was able to secure the equipment and use it for diagnostic and therapeutic purposes about which he wrote in his first book in 1905 (Figure 4).

The hospital building is now owned by the city and is still quite an imposing structure. Early in the century and for many years, however, it was the center of great activity; and Doctor Morse was both the owner and operator of the hospital. During much of this time, he was the only doctor in Eldora. Some of the experiences which he gained in surgery came from the care of farmers, railroad people and factory workers in Hardin County and surrounding towns. I am unable to find that he was away very much or traveled in the United States or abroad during all his years in Eldora. For this reason I must conclude that his knowledge and understanding of surgery must have been derived from extensive reading and from his ability to learn from his own experiences. In his writings, he appears to have covered the literature quite thoroughly and refers frequently to the methods of Murphy and Senn, Ferguson, Halsted, Keen, Fenger and others well-known to surgery at the turn of the century.

I recently went to Eldora, and through the courtesy of Dr. John Shurtz, was able to talk with several people who knew Doctor Morse and recall the early days in Eldora. Among the people I talked to were Mr. Frank Jackson,

(Please turn to page 12)

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aged 99; Mrs. Genevieve Nizette, aged 81; Mr. Jay Newcomer, aged 90; and Miss Virginia Haas, aged 80. All of them knew Doctor Morse personally, and it was interesting to me that the women uniformly loved and admired Doctor Morse whereas the men were more reserved and some even questioned his veracity. Everyone seemed to agree that Doctor Morse was a kind, thoughtful and very dedicated physician. He and Mrs. Morse had no children, and I got the impression that he was particularly solicitous of children and often went out of his way to be nice to them and to bring them gifts. This may explain, to some extent, the feeling which the ladies I talked to had for him because they were young girls at the time they knew Doctor Morse. It was apparent to me also that he was a great favorite with the families of the town and was also very active in the church and some other enterprises. He was not, however, involved in civic affairs or lodges or clubs to any extent. He did not travel much outside of the county, although he did attend medical meetings and there are frequent notations in the minutes of the State Society meeting of his participation.

Physically, Doctor Morse was a big man. Those who remembered him estimate that he must have weighed between 250 and 300 lbs. He was over six feet tall; he moved rather slowly and deliberately. In spite of his size, he was not loud or aggressive or demanding. In many respects then he was perhaps the antithesis of the image of the surgeon. In my interviews I was unable to find any indication that he had ever been a controversial figure, that he had had trouble with any of the people in the town or the county or that he had failed to live up to the high standards which he set for himself. I have to say that he enjoyed an excellent reputation in the community and that he attended to his work diligently and was completely devoted to his patients.

Doctor Morse practiced in Eldora for 42 years until his death in 1919. He was a member of a number of societies, including the Western Surgical and the American Association of Railroad Surgeons. He was an examiner for the Draft Board, and apparently during the flu pandemic of 1918 and 1919 he was very much overworked and after a very brief illness died at home, apparently of a heart attack.

I have looked at some of the developments during Doctor Morse's lifetime and thought about how they might have influenced his work. A few are listed below. One should realize, however, that even before this time some of the fundamental advances in medicine and surgery had occurred, including the pioneer investigations of Semmelweis, 1847, on transmission of puerperal fever, and then in the 1840's the discovery of anesthesia.

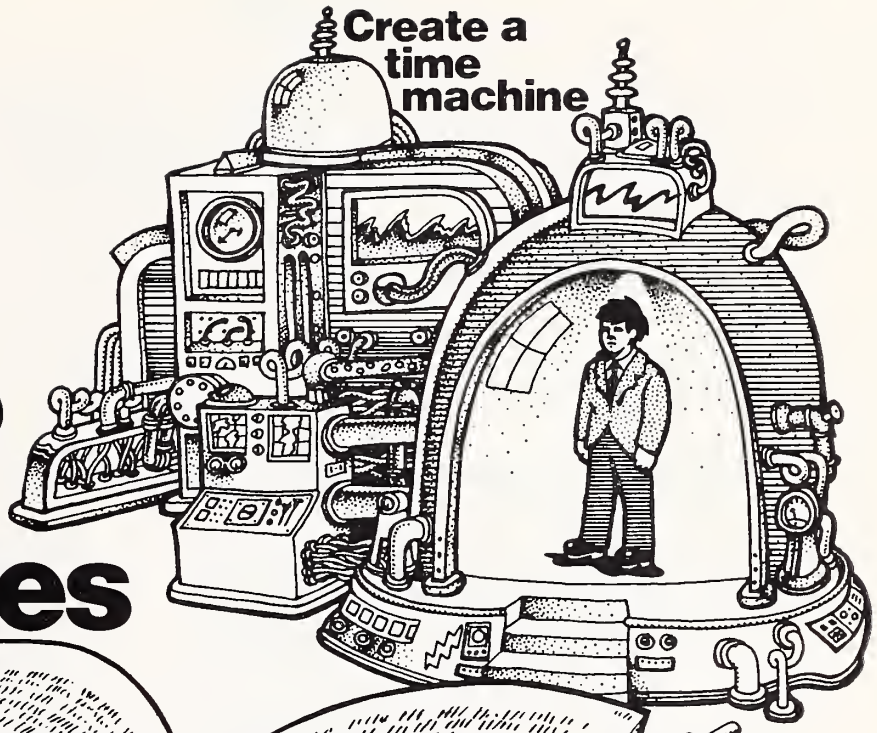
SOME ADVANCES DURING DR. MORSE'S LIFE

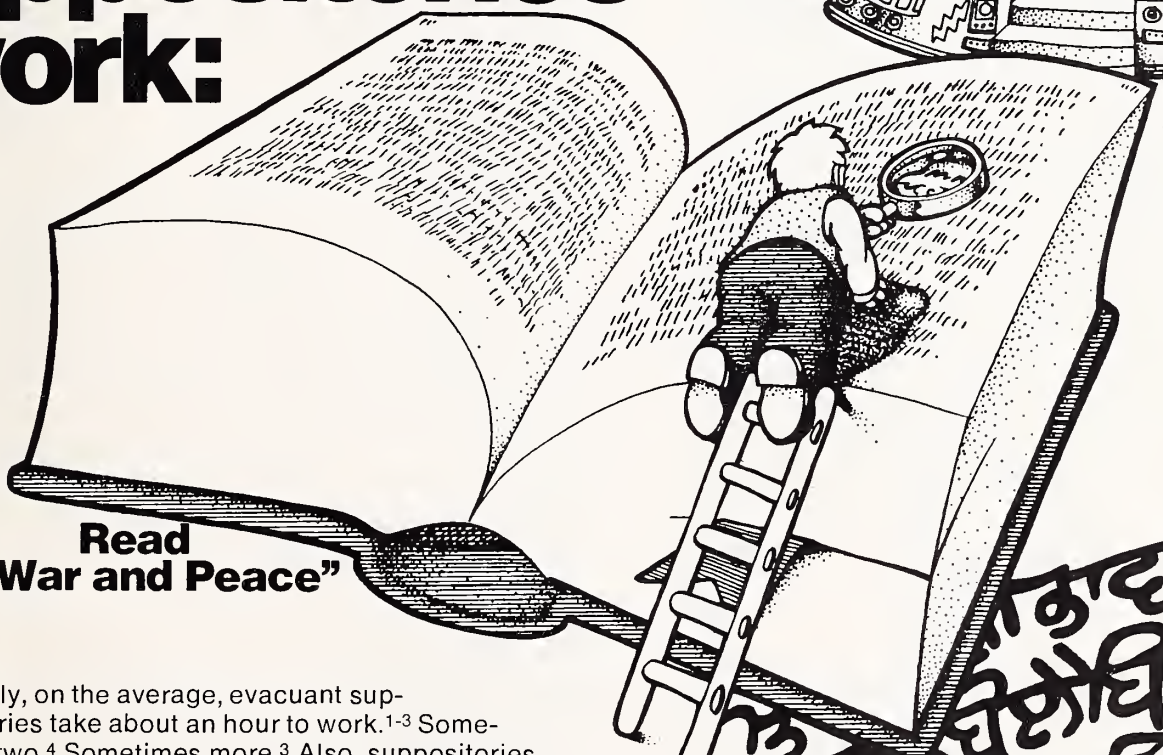
1. Pasteur	*1860*	*Demonstrates bacteria in air*
2. Lister	*1867*	*Introduces antiseptic surgery*
3. Billroth	*1881*	*Resects stomach for cancer*
4. Fitz	*1887*	*Describes pathology of appendicitis*
5. Halsted	*1891*	*Introduces rubber gloves in surgery*
6. Roentgen	*1895*	*Discovers x-rays*
7. Curie, P. and S.	*1898*	*Discover radium*
8. Sauerbruch	*1904*	*Introduces pneumatic cabinet for chest surgery*
9. Rous	*1911*	*Transmits sarcoma via filterable virus*
10. Carrel	*1915*	*Tissue culture, transplant, wound treatment*

During all these years Doctor Morse was very busy with his large practice, and with his studies and writings. Undoubtedly his books had a profound effect on surgical management of the times. They were widely read and served as excellent sources of up-to-date practical information. I found it difficult to understand why Nathan Morse's important medical works were forgotten so soon after he died. But I also derived much satisfaction from pursuing the subject after learning about his contributions.

In all likelihood, there are many such "nuggets" which are waiting to be mined. But they are not easily discovered nor unearthed, for they do not lie on the surface. There is an urgent need to explore the medical history of the small towns of the Midwest because the "oldtimers" are getting quite old and firsthand knowledge about "how it was" will not long be available.

What to do until suppositories work:





Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

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Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present.
Caution: Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

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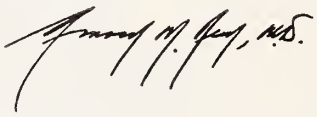
STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Epidemiology of Venereal Disease Cases in Iowa

For the first nine months of 1970 a total of 4,017 cases of gonorrhea, 396 cases of syphilis and one case of lymphogranuloma venereum were reported to the Venereal Disease Control Division of the Iowa State Department of Health. Private physicians reported approximately 59 per cent of the gonorrhea cases and 73.5 per cent of the syphilis cases for a total of 61 per cent of all venereal disease cases reported. The public clinics have reported 40 per cent of the gonorrhea morbidity and 26.5 per cent of syphilis for a 38.8 per cent total. Less than 1 per cent of the venereal disease cases are reported by the military.

The Iowa State Department of Health has three full time venereal disease field representatives. Four counties (Scott, Black Hawk, Linn and Polk) employ additional venereal disease field representatives. These venereal disease field representatives do the epidemiologic follow-up necessary on each reported case. The type and extent of follow-up depends upon the disease and the stage of the infection. Investigations are made on all reported gonorrhea and infectious syphilis cases. A contact interview is performed on all laboratory confirmed male cases and selected female cases of gonorrhea. The objective is to locate all persons who have had sex contact with a laboratory confirmed case of gonorrhea and to assure that all exposed persons receive a medical examination and appropriate curative or prophylactic treatment.

FOR EDITORIAL ON
VENEREAL DISEASE
PLEASE SEE PAGE 40

The contact tracing of syphilis cases is virtually the same as for gonorrhea except in the case of syphilis both males and females are interviewed for sex contacts. Cases diagnosed either in the primary, secondary or early latent (less than one year's duration) stages are interviewed. Follow-up activities may require referring patients back to their family physician for a repeat serology or for treatment. The venereal disease field representative always assists the physician in whatever way necessary in maintaining confidentiality and professionalism with his patients.

Of the 4,017 reported cases of gonorrhea during this period, 2,214 were males and 1,803 were females. Seventy-three (73) per cent of the males and 29 per cent of the females were interviewed for contacts. The symptoms of gonorrhea in the male are usually quite apparent to the individual; he often experiences extreme pain and discomfort which impels him to seek medical assistance. The female, however, may be unaware that she is infected and consequently is not self-motivated to consult a physician. Her infection may go undetected until she is named as a contact and brought to medical examination.

The local and state venereal disease field representatives in Iowa from January to September 1970, investigated 2,285 suspected cases of venereal disease. A total of 1,874 persons or 82 per cent were located and examined. Of this number 448 were found to be not infected, while 1,426 were diagnosed and treated for a venereal disease. From the total number of investigations made 18 per cent or 411 individuals could not be examined or treated for the following reasons: 1) The contacts or suspects could not be located; 2) The contacts or suspects lived or had moved out of the state. A forwarding address is sought; and 3) Insufficient information was given to begin an investigation.

The gonorrhea patients interviewed during this nine-month period either by health department venereal disease field representatives or by private physicians resulted in the naming of 1.18 persons as sex contacts per case interviewed. This "contact index" is considered good interviewing for gonorrhea cases because of the short incubation period. A contact index of 4.27 and 2.50 was obtained for infectious (primary and secondary) and early latent (less than one year's duration) syphilis cases, respectively.

According to a national survey conducted by

This summary has been prepared by Braxton Moore of the Venereal Disease Control Division of the Department of Health.

the American Social Health Association in 1968, only 20.3 per cent of infectious syphilis cases and 39 per cent of the gonorrhea cases in Iowa are reported to the local or State Health Department. Complete and prompt reporting of all venereal disease is essential in order to break the chain of infection and control the spread of this disease. The cooperative effort of all public health and medical personnel is imperative in this control program.

Morbidity Report for Month of November 1970

Diseases	Nov. 1970	1970 to Date	1969 to Date	Most November Cases Reported From These Counties
Brucellosis	7	52	37	Dubuque
Chickenpox	588	5064	4387	Black Hawk, Polk
Conjunctivitis	32	332	361	Carroll, Johnson, Plymouth, Pochahontas
Encephalitis, viral	1	4	17	Clinton
German measles	42	2074	2386	Polk
Gonorrhea	386	5048	3942	Scattered
Hepatitis				
infectious	16	317	356	Pottawattamie
serum	1	1	3	Cerro Gordo
Histoplasmosis	2	19	19	Johnson, Marion
Impetigo	136	688	662	Black Hawk, Lee
Infectious mononucleosis	34	504	490	Scattered
Malaria, imported				
P. vivax	1	21	17	Polk
Measles	14	1130	340	Polk
Meningitis				
echo 9	1	4	2	Dallas
meningococcal	1	13	21	Polk
Mumps	456	3079	4312	Des Moines, Marshall, Wapello
Pneumonia	79	848	536	Scott
Rabies in animals	11	116	94	Scattered
Rheumatic fever	2	50	21	Carroll, Crawford
Salmonellosis				
S. enteritidis	2	138	4	Scott, Woodbury
S. infantis	1	6	1	Black Hawk
S. newport	1	5	17	Polk
S. typhimurium	3	30	37	Chickasaw, Delaware, Story
Shigellosis				
S. sonnei	3	76	108	Dubuque, Johnson, Scott
Streptococcal infections	630	6193	4330	Johnson
Syphilis	37	471	677	Scattered
Tetanus	1*	2	0	Allamakee
Tuberculosis, active	14	126	114	Polk

*Delayed

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MEET THE A.D.—"Bump" Elliott, U. of I. Athletic Director, visits with workshop participants in one of four informal lunch sessions with the experts. Other experts included Basketball Coach Dick Schultz and Wrestling Coach Gary Kurdelmeier.

SHORTY EXPLAINS—W. D. Paul, M.D., well-known U. of I. team physician and workshop director, leads this discussion. Left to right are Ronald Sowa, M.D., Evansville, Ind., Dr. Paul, Burton Stone, M.D., Burlington, and Richard Shepard, M.D., Albert Lea, Minn.

Sports Medicine Workshop

These are scenes from the November 21-22 Workshop in Sports Medicine in Iowa City. The conference provided its more than 50 participants up-to-date information on the medical aspects of sports. Sponsors were The U. of I. College of Medicine, the Department of Intercollegiate Athletics, the Iowa High School Athletic Association and the Society's Committee on Sports Medicine.

TAPING TIME—Viewing a taping technique are J. H. Spearing, M.D., Harlan, left, and Robert Hickerson, Jr., M.D., Knoxville, Ill. Taping procedures were demonstrated by U. of I. trainers.

SPORTS TALK—Left to right are Iowa physicians A. L. Jensen, Iowa City, J. H. Hill, Boone, and R. W. Anderson, Des Moines. Dr. Jensen, now a resident in radiology, practiced in Clinton.

President's Page

In accordance with Article V, Section 5 of the Articles of Incorporation and By-Laws, I am calling a special session of the IMS House of Delegates for 10 a.m., Sunday, January 24. The meeting will be in Des Moines at Johnny and Kay's Hyatt House Motor Hotel.

The meeting is for one purpose only, to consider the establishment of a Foundation for Medical Care in Iowa. The duly elected delegates from Iowa's county medical societies will decide whether such an instrument of the medical profession can make a positive contribution to the delivery of medical care in this State.

Should the House vote *aye*, the time between January 24 and the Annual Meeting will allow for the development of specifics which may be presented to the Delegates for further action in April.

Special meetings of the House are seldom called, only when matters of considerable importance require prompt attention. Based on physician reaction, as measured at the 14 recent informational meetings, it is the feeling of the Society's officers the subject of a Foundation for Medical Care deserves this priority attention.

President

MEDICAL MEETINGS

CONTINENTAL U. S.

Jan. 6-9 — **American Rheumatism Association,** Washington-Hilton, Washington, D. C.

Jan. 7-9 — **National Conference on Cancer of Colon and Rectum,** Hotel del Coronado, San Diego.

Jan. 11-23 — **Family Practice Review sponsored by University of Nebraska Medical Center,** Amphitheater of University of Nebraska Hospital, Omaha.

Jan. 13-14 — **Postgraduate Course on Fifty Years of Surgical Progress sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Jan. 13-15 — **Postgraduate Course on Coronary Atherosclerotic Heart Disease sponsored by American College of Physicians and American Heart Association, Grady Memorial Hospital,** Atlanta, Georgia.

Jan. 17 — **Colorado Academy of General Practice Annual Symposium sponsored by University of Colorado School of Medicine,** Denver.

Jan. 18-20 — **Society of Thoracic Surgeons,** Statler Hilton Hotel, Dallas.

Jan. 18-22 — **Postgraduate Course on Recent Advances in Internal Medicine sponsored by American College of Physicians, Medical College of Georgia,** Augusta, Georgia.

Jan. 18-23 — **Seventeenth Annual General Practice Review sponsored by University of Colorado School of Medicine,** Denver.

Jan. 20-21 — **Postgraduate Course on Orthopedic Challenges —Reconstructive and Post Traumatic sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Jan. 20-22 — **Diabetes in Review: 1971 Clinical Conference sponsored by American Diabetes Association in cooperation with Mayo Clinic-Mayo Foundation,** Rochester and University of Minnesota School of Medicine, and Health Science Center, Minneapolis.

Jan. 22-24 — **Fourteenth Annual Cardiac Symposium sponsored by Arizona Heart Association,** Arizona Biltmore Hotel, Phoenix.

Jan. 27-28 — **Postgraduate Course on New Developments in Special Procedures, Complications and Legal Implications in Radiology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Feb. 1-6 — **Seventeenth Annual General Practice Review sponsored by University of Colorado School of Medicine,** Denver.

Feb. 3-4 — **Postgraduate Course on General Practice sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Feb. 3-5 — **Postgraduate Course on Respiratory Disease sponsored by University of Nebraska Medical Center,** Omaha.

Feb. 5-7 — **Postgraduate Course on Recent Advances in Immunoprophylaxis and Chemotherapy of Infectious Diseases sponsored by American College of Physicians,** Statler Hilton Inn, Tucson.

Feb. 8-12 — **Postgraduate Course on High Risk Infant Care sponsored by University of Colorado School of Medicine,** Denver.

Feb. 10-11 — **Postgraduate Course on Disorders of Red Cell sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Feb. 14-15 — **AMA Annual Congress on Medical Education,** Palmer House, Chicago.

Feb. 16-19 — **Postgraduate Course on Surgery of Hand sponsored by University of Colorado School of Medicine,** Denver.

Feb. 17-19 — **Postgraduate Course on Medical Complications in Pregnancy sponsored by American College of Physicians, and University of Southern California,** Ambassador Hotel, Los Angeles.

Feb. 18-19 — **Postgraduate Course on Clinical Otorhinolaryngology sponsored by University of Nebraska Medical Center,** Omaha.

Feb. 18-19 — **20th Annual Postgraduate Symposium on Hearing and Speech sponsored by University of Kansas School of Medicine,** Battenfeld Auditorium, Kansas City, Kansas.

Feb. 19-20 — **Postgraduate Course on Perils of Medical Management,** The Wisconsin Center, University of Wisconsin, Madison.

Feb. 21 — **23rd Annual Program of American Academy of Forensic Sciences,** Del Webb's Towne House, Phoenix.

Feb. 22-24 — **26th Annual Postgraduate Symposium on Surgery sponsored by University of Kansas School of Medicine,** University of Kansas Medical Center, Kansas City, Kansas.

Feb. 24-25 — **Postgraduate Course on Review of Connective Tissue Diseases by Systems: Manifestations and Management sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

ABROAD

Apr. 30-May 20 — **Medical Seminar Cruise to Mediterranean sponsored by Department of Postgraduate Medicine, Albany Medical College,** Ports of call include Casablanca, Naples, Genoa, Cannes, Barcelona, and Lisbon.

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1971

Jan. 6 — Ophthalmology Clinical Conference

Jan. 25-28 — Intensive Coronary Care Management Course

Jan. 27 — Refresher Course on Cerebrovascular Disease

Feb. 16-19 — Refresher Course for the Family Practitioner (See Page 36 for more information)

Feb. 27 — Refresher Course on Cerebrovascular Disease

Mar. 3 — Ophthalmology Clinical Conference

Mar. 24 — Refresher Course on Cerebrovascular Disease

Mar. 24 — Vision Workshop for the Generalist

U. of I. College of Medicine

THE DOCTOR'S BUSINESS

I RESOLVE—IN 1971

LARRY E. LEAVERTON
Des Moines

The beginning of a new year causes us to reflect on the past and plan for the future. It is a time to take stock of the situation. A time to set goals. What mistakes have been made in the past? What improvements can be made for the future?

Goal setting is an organized method of getting results. Whether your immediate goals are to devote a specific number of hours to professional reading and study, or to set a certain number of dollars aside this year for Junior's education, a plan is necessary.

A good procedure to use in goal setting is as follows:

Crystallize your thinking. Determine the specific goals you want to achieve.

Develop a plan for achieving the goals and a deadline for accomplishing the plan.

Develop a sincere desire for the things you want in life.

Develop supreme confidence in yourself and your abilities.

Develop a dogged determination to follow through on your plan, regardless of obstacles or circumstances.

If we were to list the major general problem areas for Iowa physicians today, the list would include:

- Time management—how to accomplish more in the normal day.
- How to obtain greater ease of practice.
- Increased delegation—is there anything more that can be delegated in order that more time is available to devote to patients?
- Rising costs of medical practice—how to stabilize costs in order to minimize further fee increases to patients.
- Keeping abreast with the changes in medical practice.
- How to meet the total health needs of the community.
- Eventual retirement—when, and by what means?
- Increasing controls by third parties over the private practice of medicine.

Specific areas where improvement or goal setting or resolutions for the year are appropriate include:

- To be a better administrator. Pay more attention to the business side of your practice.
- To be a better communicator.
- To examine new ways of being more productive.
- To improve and upgrade your office staff.
- To attend and participate in medical society meetings—voice an educated opinion.
- To take a good look at the public relations of your office.
- To treat your patients as you would like to be treated.
- To get all personal financial affairs in order.
- To do a better job of building retirement funds for yourself and an estate for the protection of your family.
- To develop a philosophy of practice—one that is workable and realistic.

If any of these goals depend on the cooperation or participation of your office assistants or your family, let them assist in setting the goals.

What do you want to accomplish this year? Any of these items could be prime candidates for goals or resolutions for 1971. Achievement of these goals will bring a strong sense of accomplishment and satisfaction.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

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Scientific Articles

Amenorrhea—A Clinical Guide

I. Primary Amenorrhea

JAMES R. SCOTT, M.D., and
MICHAEL E. YANNONE, M.D.
Iowa City

AMENORRHEA IS A SYMPTOM rather than a disease entity, and as such does not constitute a diagnosis. The term "primary" amenorrhea implies that menses have never been established. Since there is no uniformity regarding the evaluation of this problem, we shall attempt to outline the salient clinical and laboratory findings and therapeutic management of the most frequently encountered disorders responsible for primary amenorrhea. Less common entities will be briefly considered only if important to the general understanding of the subject. However, we intentionally have omitted such systemic diseases as malnutrition, obesity, thyroid disorders, diabetes mellitus and others which in our experience are rarely the cause of primary amenorrhea.

A normal but delayed menarche may be familial or result from environmental stresses and is sometimes difficult to distinguish from primary amenorrhea. The age of onset of menstrual periods has been progressively earlier over the past century (at a rate of three to four months each decade[1]) and this seems to correlate with better living conditions, improved nutrition, and earlier somatic maturity. Currently the average age of menarche in this country is about 12.5 years[2] with less than 1 per cent of girls beginning after age 17. Statistically there is cause for concern if menstrual periods have not occurred by age 16, although many abnormalities responsible for primary amenorrhea can be diagnosed earlier.

Puberty is a complex physiologic change that involves maturation of the internal sex organs as well as the rest of the body as depicted in Figure 1.[3] It is difficult to determine which structures and organs reach maturity first, but evidence points to the hypothalamus as the controlling factor. An intact pituitary-ovarian axis, as shown in Figure 2, together with an anatomically normal genital tract are prerequisites to the appearance of menstruation.

In most cases of true primary amenorrhea, an embryologic, chromosomal or endocrine factor is found responsible. The following general classification of the major etiologies is clinically helpful in the differential diagnosis and in determining the prognosis:

I. ANATOMIC DEFECTS OF THE GENITAL TRACT

A. Anomalies causing cryptomenorrhea
B. Absence of the uterus

Dr. Yannone is a professor in the Department of Obstetrics and Gynecology at the U. of I. College of Medicine. Dr. Scott is a resident in the Department.

II. PRIMARY OVARIAN FAILURE

A. *Turner's syndrome*
B. *Variants of gonadal dysgenesis*

III. INTERSEX PROBLEMS

A. *Adrenal androgenic disorders*
B. *True hermaphroditism*
C. *Testicular feminizing syndrome*

IV. CENTRAL NERVOUS SYSTEM DISORDERS

A. *Pituitary tumors*
B. *Panhypopituitarism*
C. *Hypogonadotropic states*

I. ANATOMIC DEFECTS OF THE GENITAL TRACT

Anomalies causing cryptomenorrhea—The patient with cryptomenorrhea appears to be amenorrheic, but in reality is having menstrual flow which is *hidden* because of a distal uterine or vaginal obstruction. Most commonly this occurs with an imperforate hymen, but other Mullerian duct abnormalities such as transverse vaginal septum, cervical stenosis, or cervical agenesis can be causative.

The patient often complains of cyclic lower abdominal pain and may have a cystic mass which is palpable on rectal or abdominal examination. Such a mass results from the accumulation of menstrual blood in the vagina, uterus, and tubes above the point of obstruction. However, the authors have seen a patient with cervical agenesis in which the blood did not accumulate but regurgitated into the abdominal cavity causing significant endometriosis. Endometriosis is not unusual in cryptomenorrhea, especially in long standing cases. Since the buccal smear, endocrine studies, and the development of the secondary sexual characteristics are normal, recognition of the disorder requires an adequate pelvic examination regardless of the patient's age.

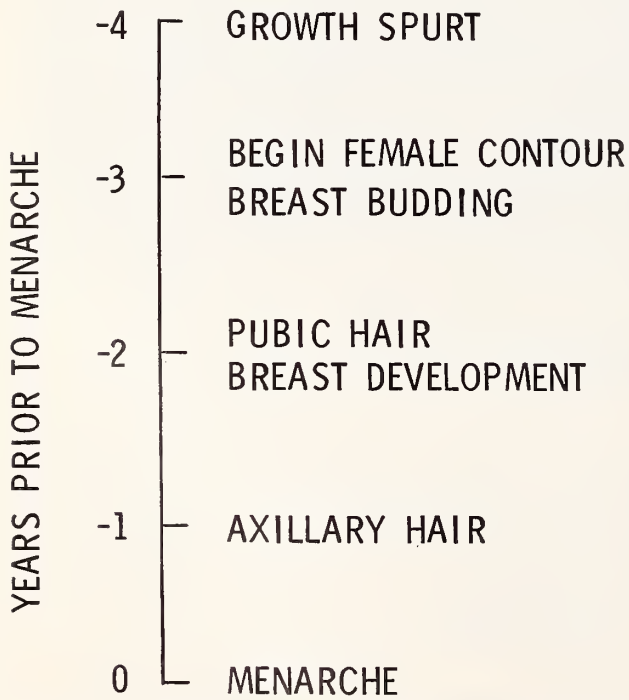

Figure 1. Normal extragenital developmental changes of puberty.

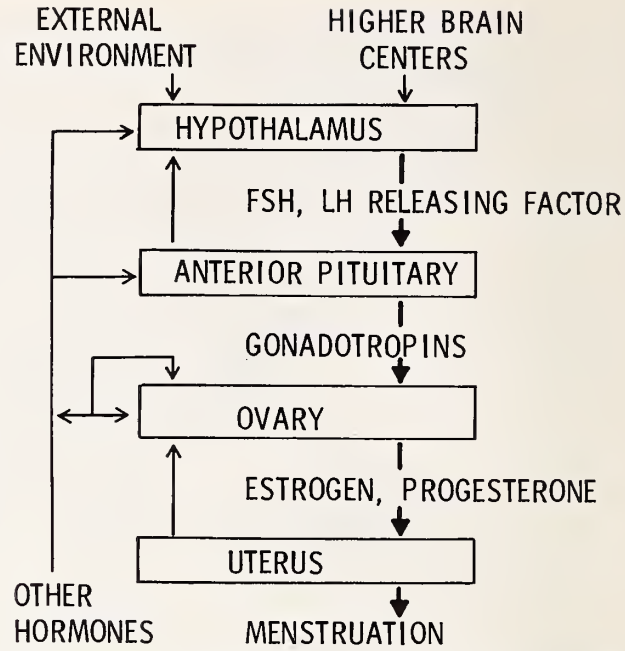

Figure 2. Pituitary-gonadal circuit and feedback mechanism involved in ovulation and menstruation.

The treatment is obvious—remove the obstruction. Incision and drainage is adequate for the imperforate hymen, but in true cervical agenesis a hysterectomy may be necessary to stop menstrual reflux as cervical reconstruction is not usually feasible. Since the blood accumulation is a good culture medium, concern for postoperative infection is well founded.

Absence of the uterus—This condition with or without a vagina is found in normally developed adolescents who have functioning ovaries and normal endocrine studies. It is suspected in any patient with a blind pouch vagina and when the uterus cannot be palpated on rectal examination. A gynecogram utilizing 1200 cc. of nitrous oxide intraperitoneally will verify the diagnosis. In this patient, as well as others with congenital reproductive tract abnormalities, intravenous pyelograms and cystoscopy should be performed to rule out an associated urinary

tract abnormality. The presence of ovaries precludes the need for estrogen substitution, but since there is no treatment for this disorder at present, the patient should be informed of her fertility status.

If the vagina is also absent and the girl is contemplating marriage, an artificial vagina can be surgically fashioned by developing a cleft between the urethra and rectum and lining it with a skin graft. However, in several well motivated young girls we have had good results using a nonsurgical technique to create the new vagina.[4] With prolonged daily wearing of silastic dilators that are progressively increased in size, a very adequate vagina can be developed. This method is most effective when a well developed vulva and vaginal indentation are present.

II. PRIMARY OVARIAN FAILURE

The lack of proper maturation and function of the ovary encompasses a galaxy of related disorders resulting from sex chromosomal defects which often affect multiple organ systems. Although Turner in 1938 first described primary ovarian tissue dysfunction, these disorders have gained increasing importance since the buccal smear sex chromatin and karyotype chromosome studies have become clinically available. Several variants of the original syndrome have since been described, and it is now estimated that 30 to 40 per cent of patients with primary amenorrhea may have chromosomal defects.[5, 6] Despite differences in terminology, these disorders have been grouped under the heading of gonadal dysgenesis, with their common characteristics being chromosome aberrations, absent or poorly developed gonads, female external genitalia, and sexual infantilism. We are especially suspicious of gonadal dysgenesis in any amenorrheic girl who is less than five feet tall.

Turner's syndrome—Although the nomenclature problem is not yet resolved, the term *Turner's syndrome* is used by us to indicate that group of individuals with short stature, sexual infantilism, and gonadal streaks instead of ovaries accompanied by varying degrees of somatic anomalies as shown in Figure 3. Most of these phenotypic females are found to be chromatin negative with 45 chromosomes, having only one X chromosome (XO) instead of the normal 46 complement (XX). These girls have little or no breast development, hypoplastic external genitalia, and a very small uterus. The ovaries are replaced by long narrow white streaks composed of connective tissue arranged in whorls without ovarian follicles. Estrogen production is almost always low, and the urinary gonadotropins are very high. About 75 per cent of patients with gonadal dysgenesis fall into this classical category.

Variants of gonadal dysgenesis—Unfortunately from the clinical standpoint, various combinations of chromosome abnormalities responsible for the gonadal dysgenesis syndrome have been reported until it is now impossible to correlate the patient's appearance with the sex chromatin and karyotype. The sex chromatin is usually negative but may be positive, and chromosome patterns range from XY(46), XX(46), XO(45), to variable mosaic patterns such as XX/XO. The appearance of these girls is extremely variable, ranging from typical short stature to normal or even a tall eunuchoid build. However, all have a poor estrogen effect, elevated gonadotropins, and the absent or rudimentary gonads which can be visualized by gynecography, culdoscopy, or laparotomy.

CONGENITAL ANOMALIES ASSOCIATED WITH TURNER'S SYNDROME IN ORDER OF DECREASING FREQUENCY.

1. Shield-like chest
2. Cubitus valgus
3. Abnormal facies-high palate, micrognathia, epicanthal folds, ear abnormalities
4. Webbed neck
5. Osteoporosis
6. Coarctation of aorta
7. Skin abnormalities—cutis laxa, nail hypoplasia, keloids, pigmented moles
8. Hypertension
9. Other skeletal defects—webbed or deformed digits, spine anomalies

Figure 3.

The management of all of these patients with primary ovarian failure is similar. Because of the poor development of their secondary sex characteristics and a marked tendency toward osteoporosis, estrogen replacement therapy is indicated. Our regimen is to begin with Premarin 0.3 mg. daily the first 25 days of each month for three to six months, followed

by 0.625 mg. during the next six months, and finally 1.25 mg. until irregular bleeding ensues. To ensure regular periods, the patient is then converted to a convenient sequential preparation such as Oracon or Ortho Novum SQ, which is used cyclically the rest of her life. This method of progressive estrogen dosage is used to avoid premature epiphyseal closure and to gain as much height as possible. For the girl of short stature, a recent study suggests that daily injections of growth hormone before or during puberty will double the growth rate,[7] but this is generally unavailable and further investigation will be needed to establish whether ultimate height can be increased. Anabolic agents such as Nilevar[8] should be avoided not only because of androgenic side effects, but also because there is no clear evidence that greater height is achieved than with estrogen alone.

Chromosome discrepancies are confusing to patients and are often best left unmentioned. One way of explaining the disorder to the patient or her parents is by describing her ovaries as "unfinished," and therefore she will be able to function normally as a woman and wife but will be unable to have children.

III. INTERSEX PROBLEMS

These abnormalities are frequently suspected upon physical examination. True hermaphrodites are individuals with both ovarian and testicular tissue whose appearance may resemble either sex. Pseudohermaphrodites are persons who have the gonads of one sex but whose external genitalia and physical appearance may resemble those of the opposite sex.

Androgenic adrenal disorders—Those adrenal disorders causing primary amenorrhea may be manifest at birth or develop at some time prior to menarche.

Congenital adrenal hyperplasia (female pseudohermaphroditism) is an inborn error of metabolism related to specific enzymatic defects in the biosynthesis of adrenal hormones. The biochemistry involved is discussed elsewhere,[9, 10] but the most common enzymatic abnormality is a deficiency of 21-hydroxylase activity in the adrenal leading to decreased production of cortisol. The resulting rise in ACTH secretion causes the accumulation of 17-hydroxy progesterone which is metabolized to androgens and pregnanetriol. The androgens cause labial fusion and clitoral hypertrophy in the female fetus. These girls subsequently virilize, and normal female sex maturation does not occur. It is believed that the elevated androgenic steroids interfere with the normal release of gonadotropins at the time of puberty. The ovaries in turn are not stimulated or activated, very little estrogen is produced, and the uterus does not mature.

Untreated adolescent girls with congenital adrenal hyperplasia have a tendency toward short stature, muscular development, skin pigmentation, deepened voice, small breasts and the growth of facial and body hair. All have normal sex chromatin and chromosome patterns. The uterus and ovaries are present, but usually a urogenital sinus serves as a common outlet for both the urethra and vagina, and clitoral hypertrophy is invariably present. A marked elevation of the 24 hour urinary 17-ketosteroids (usually in the range of 50-80 mg.) and pregnanetriol (above 2 mg.) is pathognomonic if complete suppression occurs with dexamethasone.

Therapy in these patients consists of continuous exogenous corticosteroids to first suppress and then maintain the adrenal androgen production within normal limits. The maintenance dose of cortisone or hydrocortisone is usually about 50 mg. per day in divided doses, but it is adjusted until the 17-ketosteroids, pregnanetriol and growth rate are maintained in the normal range for the patient's age. If adequate suppression is carried out early, the virilization process will be arrested, full growth will be accomplished, normal secondary sex characteristics will develop, and the patient will menstruate cyclically. The aim of surgery is to normalize the appearance of the external genitalia so that she will not be "different" than other girls. A number of normal pregnancies and deliveries have been reported in these patients.

One must be cautious, however, as clitoral hypertrophy and labial fusion can occur in the female fetus as a result of exposure to maternal androgens. This may be in the form of exogenous hormone preparations such as testosterone or Norlutin given to the mother during

pregnancy or may arise from endogenous maternal androgen production. However, this entity has been seen in the absence of any known adverse hormonal influence. These girls otherwise develop normally and the 17-ketosteroids and pregnanetriol are not elevated. Only surgical correction of the external genitalia, preferably during the fourth year, is necessary.

When signs of masculinization begin after birth, it is necessary to rule out an androgen secreting adenoma or carcinoma of the adrenal. In patients with adrenal tumors, the 17-ketosteroids are more likely to be extremely high and are not significantly suppressed by dexamethasone. Intravenous pyelograms and nephrotomograms aid in making the diagnosis, and the treatment of all adrenal tumors is surgical excision. As examples, we have recently seen two adolescents with adrenal adenomas. One presented with hirsutism, acne, voice change and amenorrhea after having menstrual periods for less than one year. Following surgical removal of the adenoma, there has been no further progression of the masculinization and normal menstrual periods have returned. The second patient had similar symptoms for several years but had primary rather than secondary amenorrhea as her tumor occurred prior to puberty. Since removal of the tumor, she has begun to show evidence of normal female sexual maturation.

True hermaphroditism—This extremely rare condition is mentioned only because the diagnosis must be considered in most intersex and chromosome disorders since there are no characteristic features to clinically distinguish these patients. The majority have a female chromatin positive smear and an XX chromosome constitution. However mosaic patterns have been reported, and there is evidence to suggest that they are usually cytogenic mosaics carrying Y chromosomes in some of their tissues.[11] Definite pathologic demonstration of both ovarian and testicular tissue is necessary for diagnosis. In these patients the differentiation of the genital tract and development of secondary sex characteristics is highly variable. In virtually all cases there is a uterus and most develop breasts, but some degree of virilization is common at puberty.

Medical and surgical efforts are directed at removing contradictory organs and reconstructing the external genitalia in keeping with the sex of rearing. Adequate and tactful communication with the patient and parents regarding their worries and mistaken ideas is important; and with proper handling, such patients should become well adjusted persons.

Testicular feminization syndrome (male pseudohermaphroditism)—This unique syndrome is characterized by primary amenorrhea, a female phenotype, essentially absent pubic and axillary hair, absence of a uterus, and the presence of testes instead of ovaries. These testes produce male levels of testosterone and less than normal female amounts of estrogen.[12]

The clinical picture can be explained on the basis of a congenital failure of end organ response to circulating androgen but greater than normal responsiveness to estrogen. Recent studies suggest that the biochemical defect in these patients is the inability to convert testosterone to physiologically active dihydrotestosterone in androgen sensitive tissues.[13] However, this defect may not be present in all of these tissues as one will occasionally see this syndrome with clitoral hypertrophy or evidence of axillary and pubic hair growth.

The typical patient considers herself to be and has the appearance of a normal female with feminine body contours, well developed breasts, and appropriate external genitalia. The vagina ends as a blind pouch or may be totally absent. Intra-abdominal testes may be palpable during bimanual examination but are sometimes inguinal or labial in location. These patients are actually genetic males with a chromatin negative buccal smear and an XY genotype. Since there is a strong familial tendency in this syndrome, one can expect half of the sisters to be "genetic males" raised as females.

Because of the incidence of neoplastic change in the gonads of these individuals later in life, eventual surgical removal is indicated. However, if they are producing spontaneous feminization, we feel that castration should be deferred until optimum breast growth and maturation has occurred. On removal of the testes, gonadotropin secretion increases and hot flashes appear as in the menopausal woman. Following surgery these symptoms are prevent-

ed and secondary sex characteristics maintained by prescribing a preparation such as Premarin 1.25 mg. daily. The estrogen should be continued for the rest of the patient's active life but used cyclically to avoid breast overstimulation.

Since the psychosexual orientation of such a "woman" is entirely female, only harm will come from informing her that she is essentially an abnormal male and the removed gonads were actually testes. This information should be withheld—the patient being told only that she has no uterus, cannot procreate, and the gonads are being removed because of their malignant potential.

IV. CENTRAL NERVOUS SYSTEM DISORDERS

A variety of central nervous system abnormalities in the adolescent age group can interfere with ovulation and menstruation.

Pituitary tumors—Tumors are an uncommon cause of primary amenorrhea but must always be considered. Intrasellar chromophobe adenomas and suprasellar craniopharyngiomas are the most frequent types. Although the amenorrhea in these cases may be due to mechanical interference with the pituitary production or release of gonadotropins, it is more likely related to resulting endocrine dysfunction of the hypothalamus. Since the gonadotropin production is usually affected, amenorrhea is commonly the first symptom developing from a few months to as long as 20 years before any other symptom.[14] The patient may therefore be otherwise asymptomatic or present with headaches, visual disturbances or other neurologic abnormalities. A thorough neurologic evaluation is necessary including skull films and visual field examination. Bitemporal hemianopsia is characteristic, and the sella turcica x-ray may reveal enlargement of the fossa, erosion of the anterior or posterior clinoid processes, or the calcification of a craniopharyngioma. Estrogen deficiency is usual while gonadotropins may be reported as normal or decreased on bioassay.

Obviously the amenorrhea is of secondary importance in these patients, and depending on its type and the symptoms it is producing, treatment of the tumor is either neurosurgical excision or irradiation therapy. With successful treatment, menstruation may be restored and pregnancies have occurred, but estrogen substitution is often necessary for development of the breasts and genital tract. If the entire pituitary is excised or destroyed, thyroid and cortisol replacement will also be required.

Panhypopituitarism—Idiopathic hypopituitarism is very rare but is readily recognized in the pituitary dwarf who shows premature aging as well as sexual infantilism. Adiposogenital dystrophy or Froelich's syndrome is a different type of hypopituitarism characterized by obesity involving the breasts and trunk, underdevelopment or atrophy of the genitalia and primary amenorrhea. In this disorder the gonadotropins are absent, and adrenal and thyroid function is borderline or low. Estrogen therapy as previously outlined and replacement of other hormones is necessary depending on the nature of the pituitary deficiency.

Hypogonadotropic states—There are variable degrees of pituitary dysfunction which range from the rare but severe panhypopituitarism to the more subtle but prevalent selective disturbances of FSH and/or LH production. In our experience this selective failure of pituitary gonadotropin production is the most common cause of primary amenorrhea and should be differentiated from a delayed menarche.

In one form of hypogonadotropic amenorrhea the patient is sexually infantile, showing no clinical evidence of pubertal development because her hypothalamo-pituitary-ovarian circuit has never started. The other type of patient shows partial or nearly complete secondary sexual maturation, but her development has arrested prior to the menarche. When first seen by the physician, she is estrogen deficient, shows a poor vaginal maturation index, and has no withdrawal bleeding following a progesterone challenge. Her pituitary-ovarian axis has functioned briefly but then failed. Otherwise both patient types are intact endocrinologically.

Either form of this disorder can simulate a delayed menarche. A history of late menarche in other females in the family and clinical evidence of late but progressive sexual maturation which will probably culminate in menarche is helpful and reassuring to the physician in these

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Now that there's a greater therapeutic potential for treating Parkinson's disease and syndrome

...the information on these pages will be of practical interest to you

Larodopa® (levodopa) Roche : therapy that demands slow, individualized dosage titration

With the advent of new Larodopa (levodopa), there is now an agent that holds promise of relief of all the major symptoms of Parkinson's disease and syndrome—rigidity and akinesia as well as tremor.

However, as has been reported in the medical literature, levodopa demands slow, careful titration of dosage, and frequent patient monitoring. Adverse reactions may occur at any time, some serious enough to require dosage reduction or discontinuance of therapy. Thus, before prescribing, it is particularly important to refer to the following Important Therapeutic Considerations, the sections covering dosage and administration, and to the information on monitoring the patient (see prescribing information).

Important Therapeutic Considerations

Larodopa (levodopa) is an unusual drug which must be administered with particular care. In view of its high incidence of adverse reactions, you will find the following therapeutic considerations for Larodopa important:

(a) Larodopa is not curative and its mechanism of action is unknown, though postulated.

(b) Long-term safety and efficacy for Larodopa have not been established.

(c) Accurate diagnosis is imperative since there is no evidence that Larodopa is effective in neurological diseases other than Parkinson's disease and syndrome.

(d) About one-third of patients or more will not experience clinical improvement on Larodopa, and virtually 100% of patients will experience side effects of some degree.

(e) The dose of Larodopa producing maximal improvement with tolerated side effects must be *carefully titrated for the individual patient.*

(f) Finally, there is no evidence that early treatment with Larodopa, while possibly controlling symptomatology, alters the course of the disease.

Photographs of patients treated with Larodopa by permission of the patients.

Guide to dosage and administration of Larodopa® (levodopa) Roche

Usual daily dosage—initially, 0.5 to 1 Gm daily (divided in 2 or more doses with food).

Total daily dosage—increased gradually in increments of 0.125 to 0.75 Gm every 2 or 3 days, as tolerated.

Usual daily dose range—from 4 to 6 Gm given orally in 3 or more divided doses, with food.

Daily dosage should NOT exceed 8 Gm.

Optimal therapeutic dosage—usually reached in 6 to 8 weeks.

Establishing optimal dosage—must be determined and *carefully titrated for the individual*—gradually increase dosage until: (1) maximal response is seen, or (2) maximum recommended dosage is reached, or (3) side effects preclude further dosage increase, or require reduction or discontinuation of dosage.

Interrupted therapy—after brief interruption, dosage should again be adjusted gradually. (In many cases, the patient can be rapidly titrated to his previous therapeutic dosage. See "Precautions" section of Complete Prescribing Information.)

To underscore the extreme importance of careful dosage titration, the following week-by-week dosage pattern has been prepared, based on the assumption that the course of therapy is uninterrupted by any complications requiring a change in dosage. (Again, dosage must be reduced when intolerable side effects occur.)

Because it is absolutely imperative that Larodopa therapy be individualized to meet the particular needs of each patient, the following dosage schedule should be considered only a model.

Larodopa®
levodopa/Roche

Titration of Larodopa (levodopa) dosage in patient evaluated weekly

Intervals	0.25 Gm Tablets	0.5 Gm Tablets	Total Daily Dose
Week 1	½ tab (0.125 Gm) *q.i.d.* w/food		0.5 Gm
Week 2	1 tab (0.25 Gm) *q.i.d.* w/food		1.0 Gm
Week 3	1½ tab (0.375 Gm) *q.i.d.* w/food		1.5 Gm
Week 4		1 tab (0.5 Gm) *q.i.d.* w/food	2.0 Gm
Week 5		1½ tab (0.750 Gm) at breakfast and dinner. 1 tab (0.5 Gm) at lunch and bedtime	2.5 Gm
Week 6		1½ tab (0.750 Gm) *q.i.d.* w/food	3.0 Gm
Week 7		2 tab (1.0 Gm) at breakfast and dinner. 1½ tab (0.750 Gm) at lunch and bedtime	3.5 Gm
Week 8		2 tab (1.0 Gm) *q.i.d.* w/food	4.0 Gm

The daily maintenance dosage in the above example may be increased, decreased, or maintained at the 4 Gm level depending upon the point at which optimal therapeutic results are achieved.

Concurrent therapies: Larodopa (levodopa) may be used concomitantly with other antiparkinsonism drugs such as benztropine mesylate (Cogentin), trihexyphenidyl HCl (Artane) or procyclidine HCl (Kemadrin), but when more than one drug is used, the usual dose of each may have to be reduced.
Not to be given concomitantly: MAO inhibitors. Such agents must be discontinued two weeks prior to initiating Larodopa therapy.
Note of caution for patients who require vitamin supplementation: It has been reported that pyridoxine HCl (vitamin B_6) can rapidly reverse the antiparkinson effects of levodopa therapy.

A timetable for monitoring

While it cannot be emphasized too strongly that each patient on Larodopa must be treated as a totally *distinct* entity, the following are suggested as guidelines in the monitoring of such patients.
1. For the first month, at least: the average ambulatory outpatient should be seen and evaluated a minimum of *once a week.*
2. During the second month: patient evaluations can be extended to *every two weeks* (assuming no laboratory abnormalities or intolerable side effects have occurred).
3. From the third through the sixth month: the patient should be evaluated *once a month.*
4. After six months on the appropriate maintenance dose: with no significant adverse reactions or laboratory abnormalities, the patient should be seen at least *once every two months.*
5. Finally, after one year on maintenance dosage: evaluation should be made no less than *once every three months.*

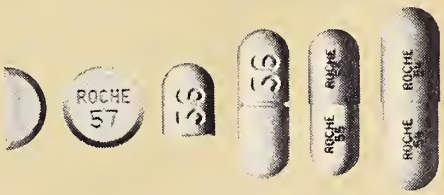
Therapeutic response

A favorable response may often be seen within 10 days to several weeks. However, a patient should not be taken off a tolerable dose—even in the absence of a response—until six months have elapsed. This is because, in some instances, the response may come relatively late. Of course, any serious laboratory abnormalities or intolerable side effects automatically dictate discontinuance of therapy.

Lessening the side-effects problem

While it is generally advisable that levodopa be taken after meals, nausea and vomiting, two frequently occurring side effects of levodopa, can often be minimized by taking medication with foods. If nausea becomes intolerable, the dosage should be cut back in daily decrements equal to the most recent increments given the patient. This reduction is to be spaced over two- or three-day intervals. Conversely, as nausea subsides, the drug dosage should be slowly increased in like increments.
An important part of the routine monitoring procedure would be to determine any possible cardiovascular problems. If cardiac arrhythmias occur, Larodopa should be discontinued and other antiparkinson therapy instituted. With orthostatic hypotension a possibility, checking the patient's blood pressure (both supine and standing) is essential.
If choreiform movements appear, they usually occur when maximum therapeutic dosages are reached. To control such effects, reduce dosage by decrements of 0.5 Gm daily.

Flexible dosage: scored tablets of 0.25 Gm and 0.5 Gm help simplify dosage titration



Conveniently scored 0.25 and 0.5 Gm tablets make possible more precise titration. Should another dosage form be preferred, Larodopa is also supplied in capsule strengths of 0.25 and 0.5 Gm.

Before prescribing, please consult product information on next page. ⟶

For the relief of symptoms associated with Parkinson's disease and syndrome

Larodopa®
levodopa/Roche

Before prescribing, please consult complete product information, a summary of which follows:

BECAUSE OF THE HIGH INCIDENCE OF ADVERSE REACTIONS AND THE NECESSITY FOR INDIVIDUALIZING THERAPY, THE PHYSICIAN SHOULD THOROUGHLY FAMILIARIZE HIMSELF WITH THE INFORMATION IN THE PACKAGE INSERT BEFORE INSTITUTING THERAPY WITH LARODOPA (LEVODOPA). ACCURATE DIAGNOSIS IS IMPERATIVE BECAUSE EVIDENCE IS LACKING THAT LARODOPA IS EFFECTIVE IN NEUROLOGICAL DISEASES OTHER THAN PARKINSON'S DISEASE AND SYNDROME.

ADEQUATE CLINICAL AND LABORATORY FACILITIES SHOULD BE AVAILABLE FOR PROPER MONITORING OF TREATMENT.

THE LONG-TERM SAFETY AND EFFICACY OF LARODOPA HAVE NOT BEEN ESTABLISHED.

Indications: For the treatment of Parkinson's disease and syndrome. Useful in relieving many of the symptoms, particularly rigidity and bradykinesia; frequently helpful in management of associated tremor, dysphagia, sialorrhea and postural instability.

Contraindications: In patients for whom a sympathomimetic amine is contraindicated; in patients receiving MAO inhibitors (the latter should be discontinued two weeks prior to initiating therapy with Larodopa); in patients with clinical or laboratory evidence of uncompensated endocrine, renal, hepatic, cardiovascular or pulmonary disease; with narrow angle glaucoma and blood dyscrasias; in patients with known hypersensitivity to levodopa.

Warnings: Long-term safety and efficacy not established. Administer with extreme caution to patients with bronchial asthma or emphysema who may require sympathomimetic drugs; to those with active peptic ulcer (in facilities equipped to treat gastrointestinal hemorrhage); in patients with psychoses or severe psychoneuroses. Initiate therapy with extreme caution and in proper treatment facility in patients with a history of myocardial infarction who have residual atrial, nodal or ventricular arrhythmias. Monitor all patients for development of mental changes, depression with suicidal tendencies, other serious antisocial behavior. Carefully consider concomitant administration of pyridoxine hydrochloride (vitamin B_6); oral doses of 10 to 25 mg have been reported to rapidly reverse the antiparkinson effects of Larodopa. In pregnancy, weigh potential benefits against possible hazards. Do not use in nursing mothers. Safety of Larodopa in children under age 12 not established.

Precautions: During extended therapy, periodic evaluations of hepatic, hematopoietic, cardiovascular and renal function recommended. In diabetic patients, control may be adversely affected; careful, frequent monitoring and proper adjustment of antidiabetic regimen required. Patients with chronic wide angle glaucoma may be treated cautiously provided intraocular pressure is well controlled and patient is monitored carefully. Monitor carefully patients receiving antihypertensive agents or psychoactive drugs concomitantly, or those with history of convulsions. If general anesthesia is required, discontinue Larodopa 24 hours prior to surgery; monitor cardiorespiratory functions carefully. Patients who improve on Larodopa therapy should resume normal activities cautiously. May be used concomitantly with other antiparkinson drugs with possible reduction in dosage of each.

Adverse Reactions: *Most frequently occurring:* nausea, anorexia, emesis, cardiac irregularities, orthostatic hypotension; choreiform, dystonic and other adventitious movements; dizziness, sedation, dyskinesia; psychiatric symptoms such as agitation, anxiety, confusion, depression, hallucinations, delusions, insomnia, nightmares, and mental changes including paranoid ideation and psychotic episodes. *Less frequently occurring* and listed according to system: *psychiatric*—suicidal tendencies, increased libido with serious antisocial behavior, euphoria, lethargy, stimulation, fatigue and malaise, dementia; *neurological*—ataxia, convulsions, faintness, impairment of gait, headache, increased hand tremor, akinetic episodes, torticollis, trismus, oculogyric crisis, weakness, numbness, bruxism; *gastrointestinal*—constipation, diarrhea, epigastric and abdominal distress and pain, flatulence, eructation, hiccups, sialorrhea, difficulty in swallowing, bitter taste, dry mouth, tightness of mouth, lips or tongue, duodenal ulcer, gastrointestinal bleeding, burning sensation of the tongue; *cardiovascular*—nonspecific ECG changes, palpitations, hypertension, flushing, phlebitis; *hematological*—hemolytic anemia (1 case); *dermatological*—sweating, edema, hair loss, pallor, rash, bad odor; *musculoskeletal*—low back pain, muscle spasm and twitching, blepharospasm, musculoskeletal pain; *respiratory*—feeling of pressure in the chest, cough, hoarseness, bizarre breathing pattern, postnasal drip; *urogenital*—urinary frequency, retention, incontinence, hematuria, nocturia, and one report of interstitial nephritis; *special senses*—blurred vision, diplopia, dilated pupils, activation of latent Horner's syndrome; *other*—fever, hot flashes, weight gain or weight loss.

Nausea, anorexia and vomiting usually obviated by temporary dosage reduction and/or administration with food. If cardiac arrhythmias occur, discontinue and institute other antiparkinson therapy. Reduce dosage when involuntary movements occur.

The following have been noted: elevation of BUN, SGOT, SGPT, LDH, bilirubin, alkaline phosphatase or PBI; occasionally, reductions in WBC, hemoglobin and hematocrit; elevations of uric acid with use of colorimetric method but not with uricase; rarely, positive Coombs test; dark sweat and urine.

Dosage and Administration: Because of the strong possibility of adverse reactions and the necessity for individualizing therapy, the physician should thoroughly familiarize himself with the information in the package insert before instituting therapy.

How Supplied: *Tablets*, pink, scored, containing 0.25 Gm levodopa (imprinted Roche 57) or 0.5 Gm levodopa (imprinted Roche 56)—bottles of 100 and 500.

Capsules, containing 0.25 Gm levodopa (pink and beige, imprinted Roche 55) or 0.5 Gm levodopa (pink, imprinted Roche 54)—bottles of 100 and 500.

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

"late starters." It is in this regard that delayed menarche can be considered with caution; but if the patient reaches her eighteenth birthday without a menstrual period, the diagnosis should be replaced by one of hypogonadotropic primary amenorrhea.

Once this diagnosis is established, development of the secondary sexual characteristics is indicated if the patient is sexually infantile. Premarin in doses sufficient to develop feminine characteristics should be instituted. When breakthrough bleeding occurs, the estrogen effect is maintained and menstrual periods are controlled by replacement with a cyclic sequential preparation. In those patients who have matured spontaneously, the sequential preparation is used cyclically to maintain a good estrogen status. Except for a few months off the hormones periodically to determine whether spontaneous menstrual function ensues, this regimen is continued until the patient wishes to become pregnant. At that time induction of ovulation is attempted with clomiphene citrate (Clomid) 50 mg. daily for five days. Gradually increasing doses are used monthly until ovulation and menstrual periods occur or until a maximum of 100 mg. daily for seven days is reached. Human chorionic gonadotropin (HCG) can also be tried giving 5,000 units intramuscularly for three successive days beginning on the day following the seventh day of Clomid. Unfortunately, it has been our experience that Clomid therapy with or without HCG is often unsuccessful in this particular group of patients. However ovulation and pregnancy can be achieved in some with the use of Pergonal and terminal HCG. Pergonal is now available to physicians, but its disadvantages include the inconvenience of daily injections and the close supervision and follow-up necessary to avoid ovarian hyperstimulation.

CONCLUSIONS

Appropriate laboratory studies and a careful history and physical examination (as depicted in Figure 4), including a pelvic and/or bimanual rectal examination, are indicated as soon as the patient and her family become concerned about her amenorrhea. Most girls do not object to a vaginal or rectal examination

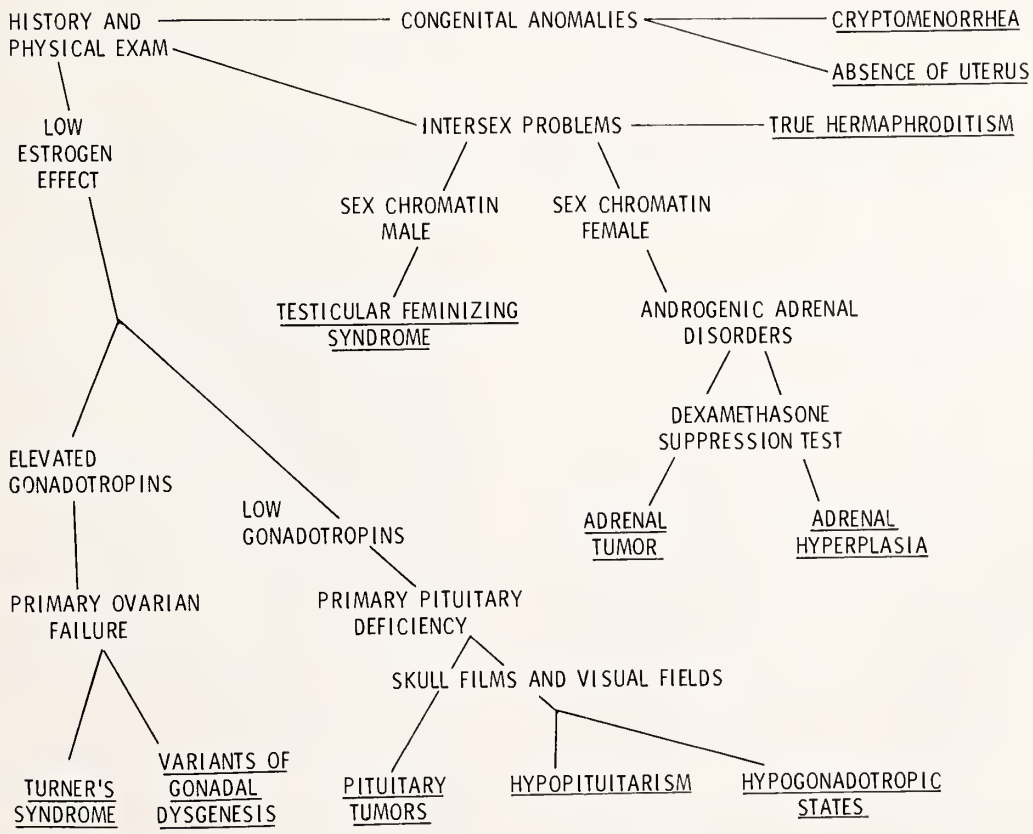


Figure 4. Determining the cause of primary amenorrhea.

if its importance is explained and the examination is done gently. Physicians have overemphasized the psychologic implications and underestimated the advantages of this procedure in young girls.

Primary amenorrhea is a serious prognosticator for the future fertility of a young woman. There is a relative decrease in fertility as the age of menstrual onset increases, so that even a delayed menarche may indicate future reproductive problems.[6] It is essential to realize that the late onset of menses may well be indicative of some underlying endocrine dysfunction or reproductive system abnormality. To regard as unimportant a definite delay in the onset of the menarche and assure the anxious mother that her 18-year-old daughter will eventually "outgrow" the condition is unwise. In the majority of cases such an outcome is unlikely. A diagnostic workup should not be avoided in these girls nor should the "pills" to induce menses or Clomid to induce ovulation be empirically used. Therefore, we have presented a clinical diagnostic and therapeutic approach to the specific diseases causing primary amenorrhea.

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Biochemical Screening in Central Iowa

RONALD L. VILLELLA, M.D., and
EILEEN C. ANTHES
Des Moines

INTEREST IN MULTIPHASIC HEALTH SCREENING has been widespread in recent years. Generally, multiphasic screening refers to acquiring and presenting by automated methods information regarding many of the body's physiologic systems. Most of the multiphasic screening programs are outside of Iowa. However, one aspect of multiphasic screening—biochemical serum screening—is available and on the increase in Iowa. What can it reveal when used on the hospitalized patient?

In September 1968 Mercy Hospital installed a 12 channel biochemical analyzer known as the SMA 12/60.* This analyzer can determine 12 biochemical components simultaneously. Many physicians have used the analyzer routinely to perform "12 tests" on their hospitalized adult patients. From these tests biochemical profiles of 1,000 patients have been reviewed. The "12 test" was performed on serum after an overnight fast. In this review wide "normal ranges" (Table I) were selected so that the incidence of abnormals would be a conservative estimate and hopefully more meaningful to practicing physicians.

The results of the review are presented in

Dr. Villella is associate pathologist at Mercy Hospital in Des Moines. Miss Anthes was a University of Nebraska School of Medicine extern in the Mercy Pathology Department when this article was prepared.

* Technicon Instruments Corp., Ardsley, New York.

TABLE I

NORMALS

Component	Range
Inorganic phosphorus	2.5-4.5 mg%
Glucose	60-120 mg%*
Urea nitrogen	6-22 mg%*
Alkaline phosphatase	24-96 mU/ml†
SGOT	10-66 mU/ml†
LDH	66-222 mU/ml†
Albumin	3.5-5.5 gm%*
Total protein	6.0-8.0 gm%
Calcium	8.5-10.7 mg%*
Uric acid	2.5-9.2 mg%*
Cholesterol	135-300 mg%*
Total bilirubin	0-1.3 mg%*

* Ranges are taken from Technicon Corporation probability paper except where indicated. In those instances, the ranges were expanded to include wider limits as reported by Best, W. R. et al.
† Obtained from 100 adults without respect to sex and without evidence of related disease.

TABLE II

INCIDENCE OF ABNORMAL PROFILES IN 1000 HOSPITAL ADMISSIONS

Number of Abnormal Tests Per Profile	Per Cent of Profiles
0*	36.9
1	31.1
2	15.2
3	8.5
4	4.9
5	2.1
6	0.6
7	0.3
8	0.3
9	0.0
10	0.1
	100.0

* i.e., all tests normal.

Table II and Table III. Normal profiles are present in 36.9 per cent of hospital admissions, whereas 63.1 per cent have one or more of their profile components outside the "normal range."

The incidence of each abnormal component is evident from Table II. The fact that inorganic phosphorus is most frequently abnormal is surprising. The relative frequency of the next most common abnormal components—glucose and urea nitrogen—is more expected.

The SMA 12/60 makes this screening practical. In our laboratory the machine is standardized for zero concentration for each component through the use of reagents. It is then further standardized by using a single value for each component. For this procedure a standard serum which includes all components except glucose is used. For glucose, aqueous standards are preferred. The standards are rerun in duplicate every 10 samples. Control sera are run following the initial standards. The precision of the methods are comparable to manual methods except for LDH which is more precise and SGOT which is less precise.[1]

The value of (or need for) this information is open to debate. Much of its value depends on the physician using it. The mode of presentation (Figure 1—See Page 30) allows many patterns to be recognized. Reece[2] has described some of the patterns more commonly recognized. These include patterns of acute and recent myocardial infarction, parathyroid adenoma, chronic renal failure, liver metastases and pernicious anemia. In addition, he observed that as serum urea nitrogen rises, the incidence of increased uric acid also rises. This, we also note. Although the 12 tests listed are the ones reviewed, derived values can also be obtained and reported. Some authors have evaluated ionized calcium (derived from the total calcium and total protein relationship); others, globulin and the A/G ratio. We find

TABLE III

INCIDENCE OF ABNORMAL COMPONENTS
(Profiles from 1000 Hospital Admissions)

Component	High Abnormal (%)	Low Abnormal (%)
Inorganic phosphorus	11.2	1.9
Glucose	11.5	0.0
Urea nitrogen	9.3	0.7
Alkaline phosphatase	9.7	0.3
SGOT	8.4	0.0
LDH	7.5	0.1
Albumin	2.1	5.4
Total protein	1.3	5.2
Calcium	1.2	4.2
Uric acid	4.7	0.5
Cholesterol	3.9	1.2
Total bilirubin	4.9	0.0

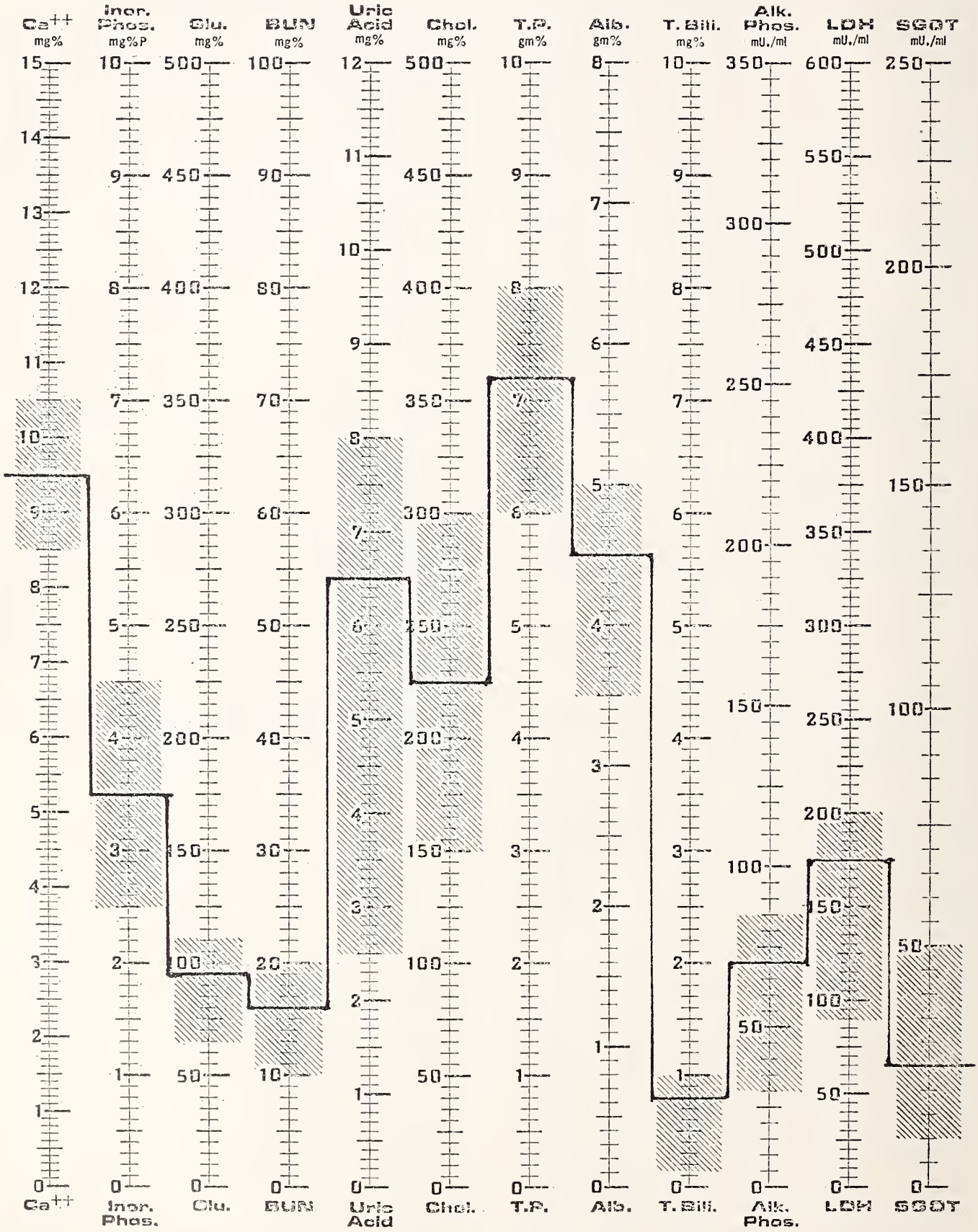
SMA 12/60
Ca++ mg%
Inor. Phos. mg%P
Glu. mg%
BUN mg%
Uric Acid mg%
Chol. mg%
T.P. gm%
Alb. gm%
T. Bili. mg%
Alk. Phos. mU./ml
LDH mU./ml
SGOT mU./ml

Figure 1

it practical to derive the latter—both globulin and the A/G ratio, and report them routinely.

In summary, biochemical profiles of 1,000 hospitalized patients, indicate that only 36.9 per cent are *normal*. The components of the serum profile most often abnormal are inorganic phosphorus, glucose, urea nitrogen and alkaline phosphatase.

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Oral and Dental Abnormalities in Mongolism (Down's Syndrome)

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MONGOLISM (DOWN'S SYNDROME) is a prenatal developmental disease entity manifested by mental retardation and a large number of physical signs and defects which usually enable the diagnosis to be made upon inspection. First described by Langdon Down in 1866, it was not until 1959 that Down's Syndrome was recognized as a chromosomal disorder.

PHYSICAL CHARACTERISTICS

The following physical characteristics are usually associated with the diagnosis of mongolism, but not all are necessarily present in individual cases. The hair of the mongoloid is sparse and fine. The nasal bones are flat, and the ears often show an incomplete development or distortion with an increased overfolding of the halix. They also have oblique palpebral fissures, epicanthal folds and sloping eyebrows which suggest an oriental appearance; Benda,[1] however, states that this is the least reliable sign of mongolism. Blepharitis and conjunctivitis are common. Opacities in the lens are common in older children and adults. The skin of the mongoloid lacks normal elasticity and roughens easily. Peripheral circulation is poor. The hands and feet are broad and clumsy. The cleft between the first and second toes is unusually large. They have characteristic finger and palm prints. The main creases fanning transversely across the palm may be replaced by a single Semian line. They usually have a low pitch, raucous voice. The penis is generally small in the male, and in the female the vulva is poorly developed. In both sexes secondary sex characteristics are delayed in their appearance.[1, 2]

ETIOLOGY

The etiology of this condition remains obscure, although it may be explained as associated with chromosomal anomalies. Most mongoloids have 47 chromosomes instead of the normal 46.[3, 4] Recent cytogenetic investigations on mongols reveal that they broadly fall into three types. In addition, several other rare types may be distinguished on the basis of their karyotype.

1. 21-Trisomy is the most common group. This condition includes a chromosome which is present in triplicate instead of the usual duplicate. The extra 47th chromosome occurring with chromosome pair 21 is said to result from non-disjunction.[3, 4]

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2. Translocation mongols: these subjects have been described by Penrose and others.[5] The chromosomal anomalies of these patients seems to be related to anomalies of chromosomes in either one of the parents. This type of mongol is frequently born to younger mothers. The extra chromosomal material is attached to another chromosome, usually chromosome number 15 or 16.[6, 7]

3. The mongol mosaics: these subjects have both normal and abnormal complements of chromosomes. In many of these cases the mongols are often quite atypical, some even possessing near average intelligence.[8, 9] Variations within the three types have been reported by Zellweger, Mikamo and Abbo.[10]

A severe insult to an embryo will usually affect certain tissues, systems and structures of the body, especially when they happen in a critical period of embryonic development. In many instances, according to Malamud,[11] the malformation can be classified in terms of stages of arrested development at a given time. But whether this points to the operation of the etiologic factor at or before that specific time remains an open question and depends on whether such factors are genetic, or intrauterine. An insult occurring between the fourth foetal week and twelfth year of postnatal life may also affect the development of those teeth which are in a critical period of odontogenesis.

DENTAL ABNORMALITIES

McMillan and Kashgarian[12] observed a high rate of abnormalities in mongoloids in both the primary and permanent dentition, and they suggested that either "the insult or deficiency is operative over a long period of time or the anlage of the primary tooth bud contains the morphological potential of growth for both the primary tooth and its permanent successor." They further suggested that various dental abnormalities, including hypoplasia, might eventually serve as temporal markers of value in retrospective and prospective epidemiological investigations of congenital malformations in assigning the time of insult of the various malformations under consideration. Gorlin, Redman and Shapiro,[13] Hillard and Kirman,[14] Ingalls and Butler,[15] Oster,[16] Tanzi[17] and Tredgold and Soddy[18] have noted the frequent occurrence of dental irregularities among mentally retarded individuals but have limited their observations to recordings of hypoplasias, missing and supernumerary teeth, or malpositioning of teeth in the dental arch. Many of these authors mentioned the presence of "malformed teeth or teeth with irregularities of morphology," but failed to specify the nature of the malformation of the teeth involved.

Kraus, Jordan, Nery and Kaplan[19] examined the permanent dentitions of 71 mentally retarded patients of Western State School and Hospital, Pennsylvania, and found 23 types of abnormalities of crown morphology. Out of 1,590 total permanent teeth present, 214 or 13.5 per cent showed abnormal crown morphology. Fifty of the 71 subjects were affected, with an average of 4.28 abnormal units per individual. The nature of each of the 23 abnormalities was described and comparisons made with dental casts of a control series and a series of individuals with cleft lip and/or palate previously reported in the literature. In this study, 7 of the 71 subjects were mongoloids and it was found that 52 of the total 152 permanent teeth showed abnormal morphology. In other words, there was an average of 7.4 abnormal teeth per mongoloid individual. In the rest of the mentally retarded subjects there was an average of 2.5 abnormal teeth per individual.

McMillan[12] examined the dental morphological abnormalities of permanent teeth of 80 mongoloids and reported that 35 per cent of the 80 mongoloids had abnormal dental morphology. Further, McMillan reported on 8,004 units observed in his mentally retarded population and found a total of 237 morphologically abnormal teeth, for a prevalence of 2.96 per cent. The prevalence reported in Kraus's paper was 13.5 per cent. The discrepancy between the two studies is probably due to the fact that McMillan's observations were based upon direct observations (clinical) of the dental arches, and he recognized only 4 morphological traits whereas Kraus and others based their observations upon examination of dental casts.

Jordan, Kraus and Neptune,[20] and Kraus, Jordan and Pruzansky[21] published a detailed description of the dental abnormalities which

are associated with cleft lip and/or palate. Each of the dental abnormalities was assigned a letter of the alphabet. Kraus and others used this method for evaluating their mentally retarded patients.

TOOTH DIMENSION ANALYSIS

Microdontia in mongolism has not been studied accurately by quantitative data, although many writers refer to mongoloids as having small and malformed teeth. A recent study by Geciauskas and Cohen[22] reported that all the permanent teeth in mongoloids except for the mandibular central incisors showed a reduction in their mesiodistal diameters which was statistically significant at the 1 per cent level.

ERUPTION

The deciduous teeth are frequently late in erupting and the pattern may be different from normal children.[23] The first incisors may not appear until 9 months, and may be delayed until 20 months or later. Completion of the deciduous dentition may not occur until 4 to 5 years of age. The pattern of eruption may be disturbed so that the molars appear before all the incisors have erupted. In some cases the pattern of eruption is peculiar because certain deciduous and permanent teeth are absent. Oster[16] observed the ages of eruption of the first tooth in 267 mongols and found that only 19 had their first tooth before or during the sixth month of life, while 161 did not have their first tooth until the twelfth month or later. In a more recent study of the eruption of deciduous teeth in mongols, Roche and Barkla[24] found that the age interval during which first teeth erupted was shorter than those previously reported. The youngest mongol in whom a tooth had erupted was 8.5 months. Abnormal sequence of eruption was also noted. The permanent teeth tended to appear more regularly than the primary teeth; however, the eruption of the first permanent molar may be delayed until 9 years of age.

MISSING TEETH

Congenital absence or fusion of the deciduous teeth may occasionally be found in young mongols.[25] Early shedding of the deciduous teeth, especially the lateral and central incisors, is quite common. Furthermore, congenital absence of certain permanent teeth has been reported.[15, 26] The maxillary lateral incisor was the tooth most consistently affected. This tooth is congenitally absent in 25 per cent, or stunted in 10 per cent as noted by Ingalls and Butler.[15] They pointed out that one third of the mongoloid children have congenitally missing or defective upper lateral permanent incisors. This was interpreted as evidence of injury to the primordium.

ORAL CAVITY IN GENERAL

Usually the mouth has been described as small, and the maxilla underdeveloped. However, Redman, Shapiro and Gorlin[26] produced measurements which indicated the palatal vault in mongolism is not abnormal when the diminished size of the bones of the skull are taken into account.

Oster[16] reported that a majority of patients (67 per cent) habitually held their mouth open. Barnes[27] explained the mouth is held open because of the relatively narrow nasopharynx and the unusually enlarged tonsils and adenoids. Others regard the open mouth as secondary to the protrusion of the enlarged tongue. Cleft palate and cleft lip each occur in about 0.5 per cent of the mongols.[12]

TONGUE

A large protruding tongue, the surface of which is fissured and/or the papillae hypertrophied, has long been used as one of the pathognomonic features of mongolism. There is some controversy as to whether the tongue is actually a true macro-glossia, or whether the tongue is of normal size but cannot be retained in the mouth because of insufficient room.[28]

Oster[16] reported that the tongue seemed too large in 57 per cent of his cases. Many authors, however, consider the tongue normal in size and only rarely enlarged.

PERIODONTAL DISEASE

Benda[2] quoted Nash[29] who found 90 per cent of mongoloids with some evidence of periodontal disease. The condition may begin as early as 3 years of age and cause the loss of deciduous incisors before the age of 5 years.[28] The severity of the condition seems to increase steadily with age, and the mandibular

incisors are usually the first to be affected. Later the process spreads to the other teeth. In young patients the first indications of the onset usually is severe gingivitis with ulcerations and sloughing of the interdental papillae and gingival margins. In older subjects severe bone loss and gingival recession are the most marked features.[28] Sometimes alveolar bone loss and consequent loosening of the teeth precedes the onset of gingivitis.

The cause of the periodontal disease is not clear. According to Dow[30] local factors cannot adequately explain the condition and he suggests that anoxia resulting from poor circulation is a possible cause. Others have suggested that susceptibility to infection, nutritional factors or poor oral hygiene may be the causes, but it is doubtful if any of these is of primary importance.[14, 29]

DENTAL CARIES

The dental caries incidence in mongols has been reported to be low by Nash,[29] McMillan and Kashgarian[12] and Rapaport.[31] Rapaport found that in an area where the fluorine content was low in the water (0.1 ppm), the dental caries incidence was 45.1 per cent in the mongols, compared to 82.9 per cent in the controls. In an area where the fluorine in the water was higher (more than 1 ppm) dental caries occurred in 21.6 per cent of the mongoloid subjects compared to 43.4 per cent in control subjects. He speculated that the action of enzymatic inhibitors accounted for the difference.

Johnson, Young and Gallios,[32] Brown and Cunningham[28] and Winer and Cohen[33] have also reported low caries incidence in mongoloid subjects. The reason for this apparent resistance to caries has not been determined.

MALOCCLUSION

Brown and Cunningham[28] reported that 64 per cent of mongols over the age of 11 years had class III malocclusion, and that almost all of them also had a cross bite in the posterior region. Further, the lower incisors were often anterior to the upper incisors. There was no correlation between the type of occlusion and the degree of periodontal involvement. Prognathism has been attributed to the tongue's pushing against the lower teeth. This would inevitably result in a prognathic mandible which is also relatively more developed than the maxilla.

Benda[2] noted progressive mandibular prognathism in mongoloids and stated, "the outline of the mandible is sometimes confused in later life through protrusion, and prognathism occurs owing to muscle traction of the masticatory apparatus." On the other hand, Gosman,[34] and Spitzer and Robinson[35] considered both maxilla and mandible to be underdeveloped, but maxillae seemed to be more underdeveloped than mandible.

PALATE

In 1890, Warner[36] described the palate of mongoloids as being high and arched and since then many writers have supported this finding. However, the criteria for judging the palatal height have never been adequately stated and no quantitative study has yet been reported. It has become a matter of discussion following Greig's finding that mongoloids have a flat, broad, but infantile palate.[37] A recent study by Redman, Shapiro and Gorlin[26] declared that their data does not support the contention that high arched or narrow palate is a characteristic feature of Down's Syndrome.

CRANIUM

Very few radiographic studies have been conducted so far on mongols. An elaborate study was done by Gosman,[34] on the heads of 22 mongols. He stated that there was a generalized underdevelopment of the whole cranium, more severe in some dimensions than others. The deformity was mainly in the head length. The height from the ear hole to the top of the head was only moderately undersized, but the total face height as measured from nasion to menton was considerably less than normal.

Many explanations have been given to account for the shape of the head in Down's Syndrome but none appear to be adequate. It was even held, at one time, that the anteroposterior shortening at the base of the skull was the primary defect.[37] Sutherland,[38] however, found no evidence for premature ossification and therefore concluded that imperfect development of the basal parts of the encepha-

lon lead to deficient expansion of the base of the skull. Howells[39] pointed out some of the complex factors that affect the size and shape of the cranial vault. Martin and Saller[40] showed that, in normal adults, the maximal head length is positively correlated with body length and proposed that the short stature of mongols might partly explain their low maximal head length.

The increased general thickness of the skull bones, seen in lateral head roentgenograms has been confirmed by pathological examinations.[2, 37] The thickness is attributed to an absence of diploe formation of the flat bones.

Gallios,[41] performed a survey on 52 mongols and he compared his data with available normative values. He found in the mongoloid skull a generalized underdevelopment of the neurocranium, middle face and mandible. Specific loci of underdevelopment were noted in the nasal bones, and the frontal bones were distorted by an upward tilt. He also noticed that the cranial base is more obtuse than normal and the thickness of the cranial vault was not appreciably different from normal controls. These findings were in contradiction to previous statements in the literature.

Ghiz and Melosky,[42] studied the craniofacial complex of pure Trisomy 21 syndrome using cephalometric analysis. The sample consists of two groups: A Trisomy 21 and a control or normal group. Each group consisted of 148 individuals who were matched with regard to age and sex. The findings showed many significant differences at the 5 and 1 per cent probability levels when compared to the normal group. These differences were found in both angular and linear measurements which resulted in a definite phenotype for the specific genotype of Trisomy 21. It was also found that the Trisomy 21 group exhibited a growth retardation that was apparent by the age of four. However, the growth rate after this age was similar within the two groups.

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Refresher Course for the Family Practitioner

The 1971 Refresher Course for the Family Practitioner will be offered in Iowa City February 16 to 19 under the sponsorship of The U. of I. College of Medicine and the Iowa Chapter, American Academy of General Practice. It will be held at the Iowa Memorial Union.

Features of the course will include breakfast "bull sessions," evening educational films, faculty-guided demonstrations, self-learning presentations, lunches with the experts, etc.

Topics scheduled for discussion on each of the three days include the following:

Tuesday, February 16

Should I Work Up a Patient with Mild Albuminuria?
Drug Therapy of Hypertension
Toxic Hazards from Drug Toxicity
Fetal Malformations from Drug Toxicity
Detection and Treatment of Glaucoma
Tonometry
Proper Joint Taping for Athletes
Understanding the Symptoms of Dizziness
Use and Value of Various Isotope Scans
Diagnosis and Treatment of Hypo- and Hyperthyroidism
Arrhythmias
What Are True Orthopedic Emergencies?
Diagnosis and Management of Ligamentous Injuries
Recognizing and Treating Low Grade Serous Otitis Media
When and How to Do a Myringotomy
New Methods in Diagnosing Pulmonary Disease
Medical Management of Patients with Chronic Obstructive Lung Disease

Wednesday, February 17

Appropriate Use of Hormones in Post-Menopausal Patients
Role of the Family Practitioner in Population Control and Eugenics
The Battered Child
The Status of Elective Abortion in Iowa
The Status and Technique of Amniocentesis
New Irradiation Devices and Techniques for Cancer Therapy
Treatment and Prognosis of Pancreatitis
How to Examine the Eye of the Pre-School Child
Test-taking for Board Examinations
The College of Medicine and Family Practice
Non-Cardiac Surgery on Cardiac Patients
Clinical Applications of Knowledge About Blood pH and Gases
Practical Details About Burn Management
A Community Meets Disaster

Thursday, February 18

Drug Treatment of Common Ventricular Arrhythmias
Predicting Heart Block
Surgical Therapy of Hypertension
Management of Diabetic Coma
Status and Safety of Oral Anti-Diabetics
Problems in Diabetes
Dealing with Convulsive Disorders in Children
Managing Serious Infections Due to Gram Negative Rods
Injection of Muscular Trigger Points
The Natural History of Alcoholism
Drug Abuse in Iowa Today
The Family Practitioner's Role in Teaching Sex Education

Friday, February 19

When Is Surgery Indicated in Rheumatoid Arthritis?
Physiotherapy for the Patient with a "Bad Back"
When to Refer a Child to a Speech Pathologist
What Hearing Aids Can and Cannot Do
Current Therapy for Psoriasis
What Should Family Practitioners Do About Nursing Homes?
Venereal Disease in Iowa
Prospects in Training the Handicapped Child
Rheumatic Fever Today
Corns, Calluses, Sore Feet
Antibiotic Resistance
Managing Patients with Leukemia and Lymphoma
The Newborn with a High Bilirubin Level
Central Venous Pressure Monitoring
The Work Up for Blood in the Urine
Axillary Brachia Plexus Block
New Drugs on the Market

Editorials

THE CONCERN OF THREE PHYSICIANS

The following letter was sent by three California pediatricians with their most recent monthly statements. These physicians practice in a central California community of approximately 20,000 persons. Their letter was forwarded by a mother who wrote, "This letter arrived with our monthly statement and did it bring sunshine into a rainy day . . . (activity such as this is) restoring the image of the medical profession which has been sadly maligned in recent years."

The letter from the physicians follows:

Dear Parents:

The current recession and increase of unemployment in our area has created an economic hardship for many. Our task at this office is to keep your child as healthy as possible, and contribute to his optimum growth and development. This requires periodic check-ups, immunization and early illness care.

We would like to assure all of our families that care is available regardless of current economic circumstances and we urge you not to wait in calling our office for advice or treatment in case of an illness or for needed check-ups.

If you are currently unemployed we will arrange for a substantial discount and delayed payments if needed. Please let our bookkeeping department know your circumstances so we may help you adjust to the current adverse economy. Be assured we will do all in our power to continue to protect the health and the growth of your children.

It would be pleasing to have the news media give this letter the same prominence which is allotted to those which criticize the medical profession. With very few exceptions physicians are dedicated individuals.

MAINTENANCE DIGITALIS THERAPY

There have been numerous reports in recent years telling of the high incidence of adverse reactions to drugs among hospitalized patients, and too it has been a common reason for the admission of a patient to the hospital. Other reports indicate it is an increasing problem in nursing homes.

Among the drugs producing toxic effects, digitalis is high on the list. In some series as many as 20 per cent of those receiving the drug were reported to have experienced a toxic effect. Contributing to the problem of digitalis toxicity is the common practice of combining it with diuretic therapy and the need for the administration of potassium.

A recent report* on the subject of Maintenance Digoxin in Elderly Patients by John L. C. Dall, M.D., Consultant Physician in Geriatrics, Victoria Infirmary, Glasgow, should prompt all clinicians to review their patients on maintenance digitalis therapy, particularly elderly patients in whom the incidence of toxicity is unusually high.

In the Glasgow study Dr. Dall stopped maintenance digitalis therapy on 80 patients to determine whether treatment was really necessary. There were 18 men in the group with a mean age of 74 years, and 62 women with a mean age of 79 years. At the time digoxin was discontinued 53 of the group were free of symptoms, and in 27 the medication was stopped because of symptoms ascribed to toxicity. The

* Dall, J. L. C.: Maintenance digoxin in elderly patients. BRIT. MED. J., 2:705-706, 1970.

Editorials continued...

patients were observed for three months and withdrawal of digoxin was considered successful if no recurrence of cardiac decompensation occurred.

Among the 53 patients free from any evidence of cardiac failure when seen, digoxin was successfully withdrawn in 48. The average dose of digoxin in this group was less than 0.25 mg. per day. Ten of the 53 patients who were symptom free had primary cardiac disease, eight with previous coronary incidents, one with atherosclerotic heart disease, and one with hypertension. It was necessary to resume digoxin in five of the 53. The other 43 patients had symptoms initially attributed to cardiac disease, but they were secondary to anemia, thyrotoxicosis or respiratory disease; these were treated but digoxin was continued despite the apparent successful treatment of the primary difficulty. In all of these 43 patients digoxin was stopped successfully and there was no return of signs of cardiac failure. Thus, in the group of symptom free patients on maintenance digoxin therapy, 48 were taking the drug, at risk of toxic effects, without any therapeutic necessity for it.

In the group of 27 patients in whom digoxin was stopped because of toxic symptoms, 20 were taking thiazide diuretics, and potassium supplements had been given to only 14 of them. Inquiry revealed that these were taken erratically or not at all. Twenty-five had ECG's and 23 showed digitalis effect. Arrhythmia was the most common toxic effect and was present in 17 of the 27 patients. Nausea and vomiting occurred in eight cases, mental confusion in seven. Refractory cardiac failure responded only after withdrawal of digoxin in five cases, all associated with potassium depletion. In the total group of 27 patients with toxic symptoms it was necessary to resume subsequent digoxin therapy in 16, however at a lower dosage, and in 11 patients resumption of treatment was not necessary. One patient died from ventricular tachycardia which was initially controlled by propranalol, but recurred after several hours.

Of the 16 patients in the group which had treatment resumed, the average weekly dosage of digoxin was 3.75 mg. when toxic effects were observed. Upon resuming digoxin, after the withdrawal trial, they were placed on a dosage of 2.5 mg. weekly. All of the patients were given potassium supplement, to be taken whether diuretic treatment was or was not contemplated.

In his conclusion the author points out that 59 of 80 elderly patients were successfully taken off digoxin. From this experience "it would appear that whenever treatment is instituted in the light of known cardiac disease, coronary artery disease or hypertension it may have to be continued on a maintenance basis, even if the patient is symptomless, but where treatment is started without a known primary cardiac lesion an opportunity should be taken to withdraw treatment after the heart is compensated before committing the patient to a maintenance regimen."

APPENDICITIS IN ELDERLY PATIENTS

It is quite generally recognized among physicians that acute appendicitis in elderly persons carries considerably higher morbidity and mortality levels than it does among children and younger adults. The higher risk in older patients has usually been attributed to a greater incidence of cardiovascular and pulmonary disorders which complicate the operation.

An editorial on appendicitis in the elderly in the July 25 BRITISH MEDICAL JOURNAL points out that the mortality in older people ranges from 2 to 14 per cent, and that factors other than pre-existing degenerative cardiac and pulmonary disease contribute to the problem. Elderly patients are more accustomed to aches and pains, accepting them with resignation as part of the impact of the years; this may delay their seeking medical help and a prompt diagnosis. Differential diagnosis poses a greater problem because of the larger number of alternative causes of intra-abdominal inflammation in the older age group. It is mentioned that de-

fenses against acute inflammation in the old are probably less efficient than in the young, and as a result there is poorer localization of infection. It is reasonable to assume that destructive changes in the acutely inflamed appendix proceed more rapidly, not only due to delay defense responses, but also to an impairment of the blood supply through atherosclerotic vessels.

In confirmation of the picture of acute appendicitis in the elderly, the article tells of a report from Helsinki, Finland, which compared the clinical picture of appendicitis in a group of patients over the age of 60 and in controls from a younger age group. This study revealed that the main clinical features in the two groups were exactly the same—the pattern and duration of symptoms, the temperature curve and the leucocyte responses. However, there was a striking difference in the operative findings—gangrene of the appendix and perforation occurred five times as often in the older age group. These findings support the contention that poorer defenses, with resulting poorer localization of the infection and a diminished blood supply, are important factors which permit a rapid progression of the disease. Inasmuch as patients with perforation have a significantly higher incidence of complication, particularly infection, it was the judgment of the Finnish group that the risks could only be reduced by earlier operation. In this Helsinki study one-half the deaths were from cardiovascular disease, but the remaining half appeared to be clearly related to the acute appendicitis and its treatment.

This editorial concluded with this comment, "the main problem with acute appendicitis in aged patients is not so much atypical clinical presentation as the rapid progression of the disease to the serious complication of perforation. Though on average there may not be much greater delay in reaching the correct diagnosis in elderly patients, any such delay seems to be more dangerous."

PHYSICIANS AND VALUES

A special article in the July 2 issue of the NEW ENGLAND JOURNAL OF MEDICINE (the opening lecture of the third-year students at Johns Hopkins University School of Medicine, 1970, by Dr. Philip A. Tumulty) deserves the serious attention of all practicing physicians. The article is entitled "What Is a Clinician and What Does He Do?" Under the stress of today's practice physicians are prone to treat the disease rather than the sick patient and to side-step the overall impact of the illness upon the patient and his family. Dr. Tumulty's article is an expression of idealism in medical practice, something which every doctor must assess at intervals if he is to be true to himself, to his profession and to his patient.

In his concluding words Dr. Tumulty urges medical students "to understand the vocation to which they have been called and what it requires with gleaming clarity, to discipline themselves to accept and meet the burdensome demands that it will continually make upon them . . . from now on they are to be engaged in service to the sick." He tells the neophytes that "with the scientific knowledge they are acquiring, with a clinical art acquired through experience, with the warmth of their own spirit and their strength of character, with the laying on of their hands, and with the strength of their words, they can make the sick better, and fill the dying with peace." It is pointed out these are great powers and the students are admonished to always deserve them.

The Baltimore physician emphasizes the care of the patient does not end with the correct diagnosis. He emphasizes the thoughtful management of the total problems of the sick person makes mere treatment of a disease or a symptom seem woefully inadequate. The clinician should be "inexhaustibly capable of infusing into his patients, insight, self-discipline, optimism and courage. Those he cannot make well, he comforts. . . . The things he works with are intellectual capacity, unconfined clinical experience, hands and heart."

One cannot escape the realization that an occasional self-analysis and a spiritual and idealistic infusion are good medicine, beneficial to the clinician as well as the patient.

Editorials continued...

THE VENEREAL DISEASE PICTURE

Venereal disease is reported to be the most prevalent infectious disease in the nation. By some yardsticks it has reached epidemic proportions. In the face of opposition to and possible legislation against sex education in the schools, it seems in order to take an objective look at the prevalence of the disease in the nation and in Iowa.

The American Social Health Association conducted surveys in the quarterly period from April 1 to June 30 in both 1962 and 1968 to determine the number of cases of infectious syphilis, *other* syphilis and gonorrhea treated by medical and osteopathic physicians in private practice. This mail survey was addressed to physicians individually. Follow-up letters were sent to those physicians who did not respond to the initial request. In the 1968 survey questionnaires were sent to 206,283 physicians and 65.3 per cent responded.

Based on the number of cases of venereal disease reported by the responding physicians and assuming the non-respondents treated cases at the same rate during the period of inquiry, an estimate was made of the total number of cases in each category for the entire fiscal year. Added to these totals of cases treated by private physicians were cases treated in public facilities. The total estimated incidence of venereal disease in the nation for the two years is as follows:

	Infectious Syphilis	Gonorrhea
1962	106,442	1,071,125
1968	75,209	1,449,125

In the most recent report of the American Social Health Association the following figures have been released for the year ending June 30:

1970	70,000 to 80,000	1,700,000

The ASHA was encouraged by the decline in the number of cases of infectious syphilis in the last few years. It was conversely discouraged by an increase of 8 per cent in the incidence of gonorrhea. This finding supports the assertion of the Surgeon General that "gonorrhea is out of control and must be considered a national epidemic of major proportions."

The incidence of venereal disease in Iowa has followed the national pattern. We have a very encouraging trend in the number of cases of syphilis and a disheartening increase in gonorrhea. The State Department of Health, Venereal Disease Control Division, provides the following data on estimated cases in Iowa:

Fiscal Year	Infectious Syphilis	Early Latent Syphilis	Total Syphilis	Gonorrhea
1950	416	440	1,796	1,035
1955*	27	116	1,304	681
1960	13	12	1,118	1,186
1965	33	13	844	2,237
1970*	33	5	641	4,959

* Note that the increase in number of cases of gonorrhea is 728 per cent between 1955 and 1970. According to the latest report, 30 per cent of the cases of gonorrhea were among adolescents between 15 and 19 years of age.

One of the real problems in the control of venereal disease has been the failure of many physicians to report cases to the proper health authorities. The estimate of the ASHA for the State of Iowa, based on its surveys, is that 5.7 per cent of the cases of infectious syphilis and 15.7 per cent of the cases of gonorrhea were reported in 1962. In 1968 these percentages increased to 20.3 and 39, respectively. This is a considerable improvement but it still leaves much to be desired.

It is generally accepted that in the presentation of the subject of sex education fear of venereal disease should not be the primary argument to induce young people to exercise restraint. It is the combined responsibility of the home, the school and the church to present the subject of sex. Youth should be provided a true and factual presentation of this subject. The epidemic proportions of venereal disease should be made known to young people so they will know that sexual promiscuity is not without danger to body, to mind and to spirit.

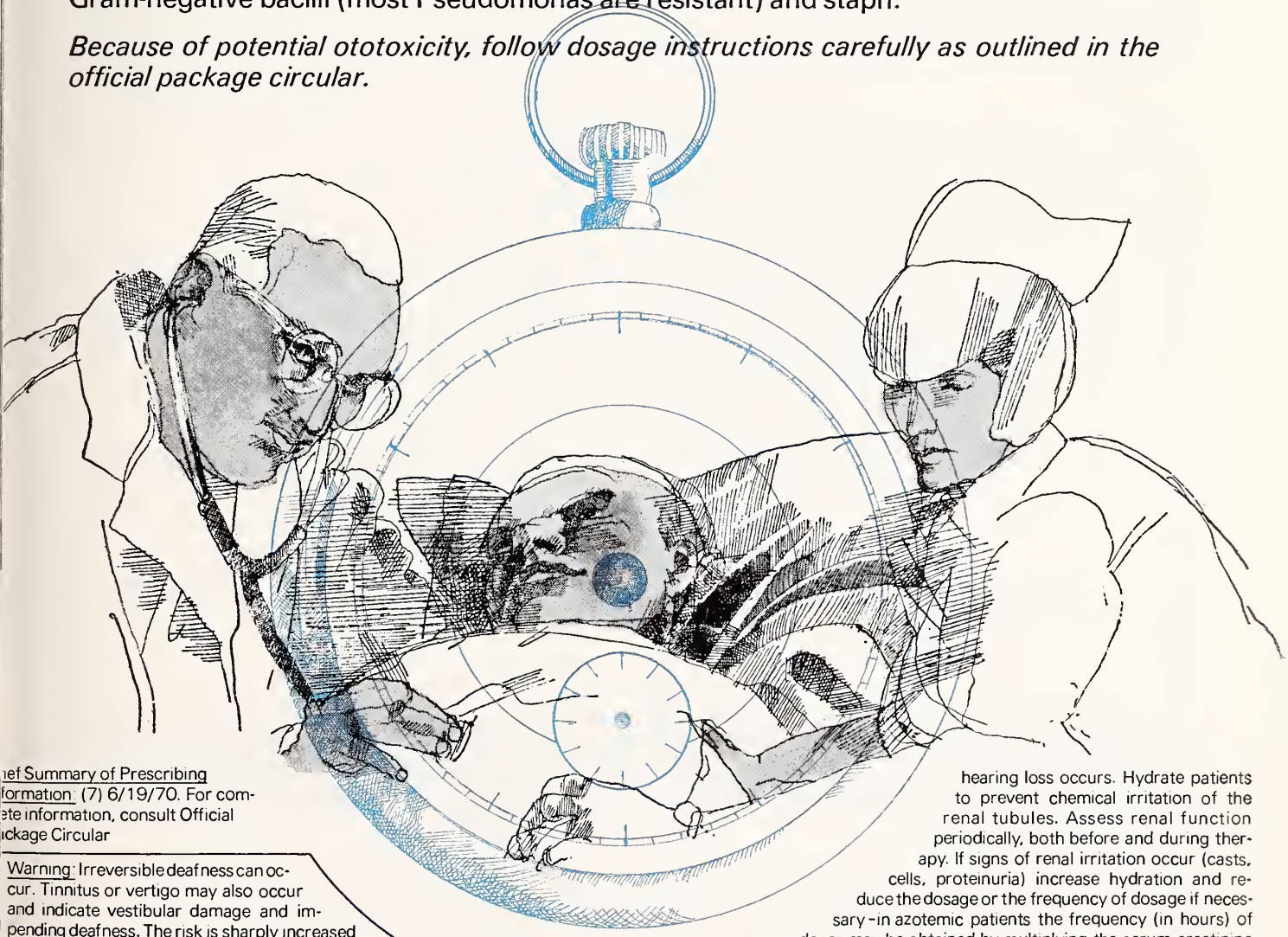
The medical profession in Iowa is confronted by a tremendous challenge, opportunity and obligation to cooperate with local and state public health authorities to combat and to control venereal disease in this state.

A valuable hospital antibiotic —when there is no time

in severe systemic infections—postoperative bacteremia, Gram-negative/staph pneumonias or neonatal sepsis—Kantrex® (kanamycin sulfate) is often indicated before results of customary sensitivity tests can be reported. Clinical response is often seen within 24-48 hours in susceptible infections, with remission soon after.

10 years of experience confirm the continuing effectiveness of Kantrex® against many Gram-negative bacilli (most Pseudomonas are resistant) and staph.

Because of potential ototoxicity, follow dosage instructions carefully as outlined in the official package circular.



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Warning: Irreversible deafness can occur. Tinnitus or vertigo may also occur and indicate vestibular damage and impending deafness. The risk is sharply increased with renal dysfunction. In such cases, decrease size and frequency of doses. Discontinue kanamycin and check hearing if azotemia increases. Watch carefully for ototoxicity in older patients and patients receiving more than 15 Gm. of kanamycin. To avoid neuromuscular paralysis with respiratory depression, postpone intraperitoneal instillation in post-operative patients until recovery from anesthesia and muscle relaxants is complete. Avoid concurrent use of other ototoxic drugs including ethacrynic acid. Safety in pregnancy is not established.

dications: Serious infections due to susceptible strains of *E. coli*, Proteus sp., *aerogenes, K. pneumoniae, Serratia marcescens* and *Mima-Herellea*. Culture d sensitivity studies should be performed.

ontraindications: A history of hypersensitivity to the drug. Prior auditory damage kanamycin or other agents may be a contraindication if effective alternative erapy is available.

ecautions: Obtain audiograms before and during therapy in patients with renal sfunction when treatment lasts more than 5 days. Stop Kantrex if tinnitus or hearing loss occurs. Hydrate patients to prevent chemical irritation of the renal tubules. Assess renal function periodically, both before and during therapy. If signs of renal irritation occur (casts, cells, proteinuria) increase hydration and reduce the dosage or the frequency of dosage if necessary-in azotemic patients the frequency (in hours) of doses may be obtained by multiplying the serum creatinine by 9. If azotemia or oliguria occur, discontinue therapy. Mycotic or bacterial superinfection may occur.

Adverse Reactions: Irritation or pain at the injection site, skin rash, drug fever, headache and paresthesias.

Dosage and Administration: The maximum total daily dose should not exceed 1.5 Gm. by all routes of administration. The usual dose is 7.5 mg./Kg./12 hours I.M. The average adult dose is 1 Gm. daily. Uncomplicated infections due to sensitive organisms should respond in 24 to 48 hours. If no response occurs in 3 to 5 days, stop therapy and recheck the bacterial sensitivities. Hydrate patients well to minimize renal irritation. Inject deeply into the upper outer quadrant of the gluteal muscle. Discard partially used vials after 48 hours. The drug should not be physically mixed with other antimicrobials.

Supplied: Rubber capped vials as a ready-to-use sterile aqueous solution in two concentrations: 0.5 Gm. in 2 ml. and 1.0 Gm. in 3 ml. Also available—Pediatric Injection 75 mg. in 2 ml.

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Iowa Medical Miscellany

(Continued from page 7)

The Student American Medical Association is creating a national information center on education materials for medical students. Primary purpose of the center will be to provide a student-controlled check on pharmaceutical manufacturers' gift-giving to medical students. SAMA representatives have determined that this practice may unduly influence students' future choice of prescriptions.

* * *

In 1968 the typical general practitioner treated 21.6 patients daily; the average physician cared daily for 17.1 patients. This finding is from the specialty profile released in November by the National Disease and Therapeutic Index. Eighty-six per cent of the GP's patient contacts were in the office, home or via telephone, thus 14 per cent were with hospitalized patients. In 1964, according to the study, GP's accounted for 32 per cent of the physicians in practice; in 1968 only 24 per cent were GP's.

IMS Eleventh District Councilor Hormoz Rassekh, M.D., Council Bluffs, has established a schedule of quarterly informational meetings for physician delegates and alternate delegates in southwest Iowa. Most recent meeting November 12 in Atlantic covered principally Foundations for Medical Care and peer review.

* * *

A new 174-page diet manual has been prepared by the University of Iowa Hospitals' Department of Nutrition. The book contains basic hospital diets, plus general diabetic requirements, fat-controlled diabetic diets, diets for conditions which require a decrease in cholesterol intake, etc. The book is available from the Iowa State University Press, Ames, for $4.95.

* * *

An invitation to membership in the Flying Physicians organization has been extended to Iowa doctor-pilots by Robert L. Bolton, M.D., Wauwatosa, Wisconsin. Dr. Bolton is seeking to establish a North Central Region for Flying Physicians. Those interested may contact Dr. Bolton at 10425 West North Avenue, Wauwatosa 53226.

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American Association of Medical Assistants

State of Iowa, Inc.

Public Relations Workshop, AAMA Convention

Public Relations! What comes to your mind? Pictures and articles in newspapers? Radio and TV spots? Public relations is more than a press release.

Our basic PR task is to foster the doctor-patient relationship. The patient is our severest critic. He is critical, not only of *what* we do or say, but *how* we do or say it. Our attitude—be it friendly, indifferent or rude—immediately reflects on our employer. Consider *Courtesy* the watchword of medical public relations. *Think about it! Talk about it! Practice it!*

Next is our civic involvement. Here we publicize our local, state and national association. Of course, we put AAMA in the spotlight as frequently as possible, remembering as we do it is the attitude of our members that will remain with those we encounter. Our requests for newspaper, radio, and TV coverage should be gracious and patient. The news media has procedures, rules and regulations and by cooperating with them, we will surely be further ahead.

How many of you have talked with your employers about AAMA? Do they know you belong to a professional group *that will not become a bargaining agency?* Does your local medical society understand your aims and do you have a good relationship? Its auxiliary is working hard to establish good rapport between medicine and the general public. Do you have liaison with them? Basically, we are all seeking the same goal—better understanding and acceptance of the medical profession. Medical public relations is a team job and we are members of that team.

Public relations is "doing good and telling about it." This is a simple definition of a complicated and important subject. Because we do good, we should tell about it—this is where the publicity facet of public relations takes its rightful place. Medical assistants, individually and organizationally, come into daily contact with many publics—physicians, patients, hospital administrators, insurance representatives, suppliers and others. These people should know we exist and what we do. The more we are known and understood, the more benefit we can be to those we serve. No matter how sound an organization is, how legitimate its reasons for existing are, how beneficial it is to all concerned, it will not be perpetuated unless it is known and understood.

Working with the public is often an exasperating task. We all know patients are sometimes unreasonable, demanding, and just plain obstinate; it takes a person with that "extra something" to handle cheerfully these difficult individuals. Recently, MEDICAL ECONOMICS carried a series of articles entitled "How Patients Feel About Doctors Today." They also surveyed doctors' personnel (June 8, 1970). About 81 per cent of the respondents considered office aides friendly, kind and capable. There was some scathing criticism: "They're cold, rude and tactless. I receive better treatment from clerks in stores." "Some of them act like it kills them to talk to you and answer any questions." "I changed doctors because of the receptionist, she made me feel unwelcome." Good public relations???

Another challenging article was in GOOD HOUSEKEEPING (July, 1970). It was entitled "What to DO IF the Doctor Comes." I should like to quote from one paragraph: "I am not, in fact, entirely rational in my attitude toward doctors. The truth is that not many people are, today, because a lot of things have changed in the medical world, and most of them are good—but a few of them are very bad indeed. They honeycomb their offices with little cubicles where I sit for hours, half-naked and magazineless; and they employ receptionists who must be bred for this purpose in laboratory jars. They are far too nicey-nice on the outside and icy-ice on the inside to be real people. I am chilled by the recorded voice which sometimes answers a doctor's phone; I am frustrated to the point of madness by the difficulties of making appointments because surely it is easier for a camel to go through the eye of a needle than for a sick man, today, to enter into the presence of his doctor."

If this is the impression people have of us and our offices, we indeed have our work cut out for us. We should concentrate on our public relations and live up to this comment from MEDICAL ECONOMICS: "Apparently there's a bit of a love affair going on between the United States public and the doctors' aides."

JEANNE D. GREEN

Woman's Auxiliary News

A Happy New Auxiliary Year

This is my wish to each of you. It is a time for renewals and the initiation of new ventures. I will have seen many of you, I hope, at the January Board Meeting when we will take a look at what we have done so far this year and discuss immediate future plans.

Membership is our crying need. Bunny Wicks had reached the half-way mark in November, based on last year's member-at-large total. That's great, but she still needs your help. County presidents, please keep recruiting; Councilors, look for the stray sheep and gather them into the fold. Elsewhere, you will read Mrs. Robertson's comments about membership.

RESERVE FEBRUARY 2

Plan to attend the Coffee for the 1971 Legislative Ladies on Tuesday, February 2. The Coffee is scheduled for 9:30 a.m., at the Iowa Medical Society Headquarters Building.

Plans have been made for an outstanding speaker. You will receive your invitation and reservation form within a few days.

Will Board members who have reports to make, please think, NOW, about organizing your material! The printer will need the reports by March 1 for the Annual Year Book.

Have YOU any supplies for Yucatan? Scott County has shipped Johnny Coats to Boone and Wapello has sent an examining table, a hospital bed, baby bed, wheel chair and chest scissors. Mr. William R. Brown, President of the Iowa Partners of the Alliance, has written to thank us for our interest. Ask your husbands for surplus drugs and instruments and your hospitals for equipment that is still usable but in excess. Let Kay Kent know what you are doing. And send or take what you have to Mrs. R. William (Jeanette) Westfall, 925 Lincoln, Boone, Iowa 50036.

In November I was a guest at a luncheon Scott County hosted for the auxiliary members of Davenport and Bettendorf Firemen and Policemen Associations. It was a delightful occasion and such an interesting thing to do. Each year different groups are invited to meet with the Scott Medical Auxilians. It's a splendid way to know hometown neighbors better.

Thank you all for your untiring efforts and cooperation in 1970. May we unite our wills and hands for greater service and more rewarding fellowship in 1971.

MARION PREWITT

A Thank You

Dear Mrs. Prewitt:

I want to take a minute to express the sincere gratitude of the Iowa Partners of the Alliance and myself for your interest in the work of the "Partners" as evidenced by your auxiliary plans to assist the "Partners" with their health work in Yucatan.

Mrs. R. William Westfall of Boone has described to the "Partners" Central Committee several times your plans to gather hospital equipment and medical supplies from around Iowa for use in Yucatan; and I want you to know we will be most grateful not only for the goods but the effort you are making in this course. I will provide some detailed instructions on where these goods can be delivered in Des Moines. We are seeking a suitable storage space and are confident we will have some space contributed soon.

Again, many thanks for your interest in us and your efforts on our behalf.

Cordially,

WILLIAM W. BROWN, *President*
Iowa Partners of the Alliance

Meet Your 1970-71 State Officers

First Vice President—Mrs. R. L. (Bunny) Wicks, Boone

Auxiliary Activities: Boone County President; State AMA-ERF Chairman, 5 years; Second Vice President.

Bunny was born and raised on a farm near Alta, Iowa. She attended Frances Shimer School for Girls and completed her education at the University of Southern California. She taught school and also did social work.

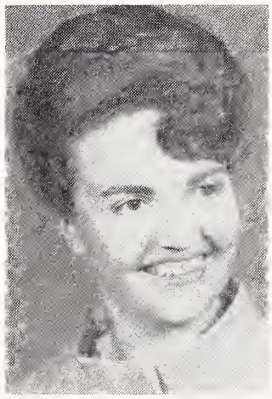
Her family includes Mary in Chicago and Douglas in Des Moines.

Bunny's past and present activities include: Cub Scout Den Mother, Girl Scout Leader, Sunday School Teacher, Church Board Member, United Fund Board Member, PEO Chapter Past President, Lowell Study Club Member and Boone Library Board Member.

Bunny collects art glass, plays bridge, knits and is an avid reader. She has travelled throughout the United States and has visited several Caribbean Islands, Europe and Hawaii. Her ambition is to be a grandmother but with neither of her children married the chances are remote at the moment.

Mrs. Wicks

Mrs. Elliott



Mrs. Veverka

Secretary (2nd Year)—Mrs. Olin A. (Vi) Elliott, Des Moines

Auxiliary Activities: Polk County President; State Community Service Chairman; Volunteer Health Service Chairman (2 Years).

Vi was born in Braddyville, Iowa. She attended Clarinda Junior College and earned bachelor's and master's degrees from Drake University. She has also studied at the University of Iowa.

Vi was an elementary school teacher and administrator in Page County and in Des Moines for 17 years. She was married to Dr. Elliott in 1961.

Vi's community service activities include: Executive Board Member and Past President, Calvin Manor Retirement Home; Mercy Hospital Guild Member; Des Moines Women's Club Member, and Presbyterian Church Leadership Training Chairman (3 years).

An ardent fisherlady, Vi studies theology with her husband and travels whenever possible. She enjoys knitting, writing, as well as playing the organ and piano.

Treasurer (3rd Year)—Mrs. J. F. (Erlene) Veverka, Prairie City

Auxiliary Activities: Editor of News; District 6 Councilor (2 years); IMPAC Representative (2 years).

Erlene was born in Hood River, Oregon. She attended Prairie Bible Institute in Three Hills, Alberta, Canada, and Multnomah School of the Bible in Portland, Oregon.

Transferred to the San Diego office of Merrill Lynch, Pierce, Fenner and Smith after six years as an Over-the-Counter Trader and Stock Broker, Erlene met and married a Navy physician determined to take her to "weed" Iowa.

The Veverkas have four children: Constance, 16; Bonnie, 13; Christopher, 5, and Jeffery, 3.

Erlene's activities include: Sunday School Teacher and various other Church responsibilities; Republican Party participation; and efforts in behalf of the Heart, Cancer and TB Funds. She enjoys entertaining, gourmet cooking, bridge, bowling, golf, swimming, dancing and football—especially Iowa games.

What Is Your Membership Potential?

Statistics from the Woman's Auxiliary to the AMA show a pattern of membership wherein the state auxiliary is about half the size of the state medical association.

Understandably there are periods when a woman's full-time duties are at home. However, I do not believe this applies to half of the doctors' wives at all times.

Examine your local auxiliary. See if everything is being done to enlist all potential members.

Recruit! Invite not only the new doctor's wife, but also the woman who refused earlier. Maybe her reason for not joining is no longer valid. Do you try to re-enroll the member who has dropped out? She would be pleased to know she is missed.

Do non-members realize how closely the medical auxiliary is associated with their livelihood? The organization is related to her husband's consuming interest—good health of people. Many groups will recruit the doctor's wife, the medical auxiliary should be her priority organization. Good health for her fellow citizens should be the No. 1 objective, as it is her husband's.

Do members of the medical association know that auxiliary membership is so low? It has been found that when they are made aware of this situation they try diligently to improve it.

Let us all, each auxiliary member, work to lower the potential and raise the number of memberships. Work to reach the goal of 100,000 members by 1972—the 50th Anniversary of the founding of the Woman's Auxiliary to the AMA.

MRS. R. C. L. ROBERTSON
1970-71 President

Woman's Auxiliary to the AMA

The Doctor's Wife

He has given his life to others,
This I do not begrudge,
For his extra hours of service
To me, need not be a drudge.
Tho I am both mother and father
the many hours of the day,
I've matured beyond my speculation
and the time quickly passes away.
It wasn't easy to make the choice
to give MY life to others.
Frustrations, I was ready to voice,
yet, somehow managed to smother.
The phone, a black monster,
encircled with grief,
relating pain day and night,
beckoning my husband to give relief,
and I to acceptance and insight.
For . . . this is the day of the doctor's life
AND . . . this is the way of the doctor's wife!

—THE ARK MAP

THE ACTION—Where Is It?

If it's happening where you are, share it with your fellow doctors' wives!

Just as county organizations are the heart and soul of Medical Auxiliary, so, also, is the reporting of their various activities the main purpose of the Auxiliary NEWS.

County Presidents or Publicity Chairmen, I am depending on YOU to send general interest stories for use in this the only vehicle we have for communicating with each other. Everyone likes to read about How, What and Why it's done somewhere else. Please, RESOLVE, to send news in any form, at any time, to 111 McClellan Blvd., Davenport, Iowa 52803.

I am sincerely grateful to those of you who have sent information, but there must be more action, about which there has only been silence.

A Happy News Year to You All!

MRS. JOSEPH L. (KAY) KEHOE
Editor, Auxiliary NEWS

ORANGE TEA ROLLS

The luncheon menu at the September Board meeting in Ottumwa included this recipe in addition to those printed last month.

Mrs. Dennis G. Emanuel

Heat 2½ cups milk to the simmering point; add ½ cup butter and remove from heat, stirring to melt butter. Combine 2 packages dry yeast and ½ cup sugar. When milk-butter mixture is lukewarm, stir in yeast mixture. Beat 2 eggs until frothy and work in along with 7 cups flour and 2½ teaspoons salt to form a soft dough. Cover and chill. Remove from refrigerator and let stand, covered, at room temperature for 3 hours before shaping into rolls.

Glaze for rolls:
6 tablespoons butter softened
½ cup sugar
1½ teaspoons shredded orange peel
2 cups sifted confectioners sugar
3 to 4 tablespoons orange juice

Stir together and spread over dough. Roll up, starting with long side, seal seams. Slice and place cut side down in greased muffin pans. Let rise until doubled in bulk.

Bake at 400 degrees, 12-15 minutes.

Around the Hawkeye State

Black Hawk County

The Black Hawk County Auxiliary has been saddened by the death of two members. Mrs. Maurice Wicklund (Charlotte) contributed immeasureably to the Auxiliary and to the community through her artistic talents.

Mrs. Fred (Sue) Gerken had been an active Auxiliary member since its beginning in 1949. She served as the Auxiliary's first president. Her continuous service through the years has been an inspiration; she served the county board in every conceivable capacity. The first and largest sale of the Oregon State Auxiliary's Doctor's Wife Rose was under her direction. Perhaps the most admirable quality Sue had was her humorous and optimistic attitude. She served two terms as Councilor of District VI and was President of the Woman's Auxiliary to the Iowa Medical Society in 1957. Sue's willingness to serve and support new projects or programs set an example for all who knew her. We know all members of the Auxiliary will miss her very much.

Wapello County

Wapello County members conducted a Homebound Handicraft Sale November 11-13. More than $200 were realized from the sale.

Scott County

On November 9 the Scott County Medical Auxiliary held its annual Reciprocity Luncheon at the Outing Club. Arrangements were handled by the Program and Social Committees headed by Mrs. C. M. Updegraff and Mrs. R. J. Van Wetsinga.

The Scott County Police and Fire Auxiliaries were guests of the Medical Auxiliary at the luncheon attended by 85 persons. Mrs. Leland Prewitt, of Ottumwa, president of the Woman's Auxiliary to the IMS, was an honored guest along with the presidents of the two guest auxiliaries.

Mauvereen Iten delighted a spellbound audience with the antics, reminiscences, affairs, keepsakes and songs of that inimitable character, Charlie Brown.

Dallas-Guthrie Society

The Auxiliary to the Dallas-Guthrie Medical Society held its regular meeting with the Medical Society in Adel on November 19. Highlight of the meeting was a talk on "Mental Retardation" by David Youngblood, psychologist for Dallas and Guthrie Counties.

Cerro Gordo County

The November meeting of the Cerro Gordo County Medical Auxiliary was held at the Sheraton Motor Inn in Mason City. The program featured a discussion and display of fashion jewelry by Richard Morel.

Final plans for the Homebound Handcraft Sale at the Willowbrook Plaza were discussed.

Disaster Workshop

The National Auxiliary goal for 1970-71 to be carried out through the state and county auxiliaries is: to achieve safer communities through better coordinated organization efforts; to keep people safe as they live at home, go to and from work, travel or enjoy recreational activities.

In pursuit of this goal, a day-long Disaster Workshop for state Auxiliary members is scheduled February 3 under the sponsorship of the Central Iowa Chapter of American Red Cross and the Polk County Medical Auxiliary.

The workshop is to be at Bishops, Merle Hay Plaza, from 9:00 a.m. to 3:00 p.m. One section of the workshop will be for nurses. Another section will be for non-nurses who wish to help in the event of a disaster by providing supportive and clerical assistance for victims (i.e., making out orders for food, clothing, shelter—helping locate next of kin, answering inquiries about disaster sufferers).

"It can't happen here," but the Auxiliary Safety and Disaster Preparedness Committee hopes many members will be prepared if a need arises. Make your reservation with Jane Wilson (Mrs. D. D.), Chairman, 7009 Washington Street, Des Moines, Iowa 50311. Because of limited space pre-registration is urged.

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Personals

Dr. William L. Telfer, of Waterloo, was named district chairman and **Dr. John R. Doran,** of Ames, district vice chairman, of the American College of Obstetricians and Gynecologists at the recent District VI meeting of the College in St. Paul, Minnesota.

Dr. Robert C. Eaton, of Clarion, was elected president of The University of Iowa Dads' Association at the group's annual meeting in November. The program is a highlight of the annual "Dads' Day" weekend festivities. The Association is a service organization founded in 1955.

Dr. Harold Moessner, of Amana, was installed as president of the Iowa Chapter of the American Academy of General Practice at the group's annual Scientific Assembly in Des Moines in November. Other new officers are: **Dr. Charles W. Beckman,** Kalona, president-elect, and **Dr. Dennis J. Walter,** Des Moines, vice-president. **Dr. George Kern,** Des Moines, was re-elected secretary-treasurer. Elected to three-year terms as directors were **Dr. Frederic Ashler,** Hamburg, and **Dr. M. N. Broers,** Schleswig. Holdover directors are **Drs. Wendel W. Taylor,** Sheffield, **J. Frederic Roules,** Mediapolis, **Carl R. Aschoff,** Cedar Rapids, and **Edward L. Croxdale,** Villisca.

Dr. Robert Mandsager, of Marshalltown, spoke at a recent meeting of the Marshalltown Optimist Club. Dr. Mandsager, who spent nine years in West Central Africa, described some of his experiences as a missionary surgeon in Africa.

Kathleen Miltner, daughter of **Dr. and Mrs. Leo J. Miltner,** of Davenport, and **Pamela Austin,** daughter of **Dr. and Mrs. A. T. Austin,** of Ottumwa, have completed The University of Iowa Medical Technology Program.

Dr. Daniel B. Stone, formerly a professor in the Department of Internal Medicine at The U. of I. College of Medicine, has been appointed Professor and Vice-Chairman of the Department of Medicine at the University of Nebraska College of Medicine in Omaha.

At the November meeting of the Dallas-Guthrie County Medical Society, the following physicians were elected to office for 1971: **Allan G. Felter,** Van Meter, president; **Herbert Neff,** Guthrie Center, vice-president; **Keith M. Chapler,** Dexter, secretary-treasurer; **Perry Weigel,** Van Meter, Dallas County delegate; **William Seidler,** Jamaica, Guthrie County delegate; **Eugene E. Lister,** Dallas Center, Dallas County alternate delegate, and **Norman Krueger,** Casey, Guthrie County alternate delegate. **Dr. Robert L. Kollmorgen,** of Des Moines, was the guest speaker at the meeting. His topic was, "Indications and Use of Pacemaker in Coronary Artery Disease Care."

Dr. K. T. Song, vascular surgeon at the Park Clinic in Mason City, was guest speaker at the November meeting of the Wright County Medical Society. Dr. Song spoke on "Septic Shock," and presented findings from his own research on the subject. Physicians from neighboring Franklin and Hardin counties were guests.

Dr. Merton A. Johnson, who formerly practiced in Nevada, has moved to Ames where he will be associated with the student health center at Iowa State University.

Dr. James D. Wilson will begin the practice of medicine in Chariton in July. Dr. Wilson is currently completing a family practice residency at Broadlawns Hospital in Des Moines. He received the M.D. degree at The University of Iowa in 1969, and served his internship at Broadlawns. Dr. Wilson is a member of the Iowa Chapter of the American Academy of General Practice.

Dr. R. L. Augspurger was appointed medical director for the Mental Health Center of North Iowa at the recent annual meeting of the organi-

zation. Dr. Augspurger has been associated with the Center in Mason City since August. **Dr. Robert M. Powell** and **Dr. Robert W. Brindley** were given certificates of commendation for their work in support of the program during the last 14 years. They will continue as consultants. The Center serves Cerro Gordo, Floyd, Franklin, Hancock, Kossuth, Mitchell, Winnebago, Worth and Wright counties.

The Northeast Iowa Regional Medical Association met in November in Waterloo. Speaking to the group on diabetes were **Dr. J. D. Brown,** associate professor of internal medicine at The U. of I. College of Medicine, and **Dr. R. C. Hardin,** vice-provost and dean of health affairs. **Dr. Karl Jauch,** of Waterloo, presided at the luncheon and discussed the future of the organization. **Dr. R. A. Weyhrauch,** of Waterloo, participated in a panel which dealt with the educational responsibilities and methods of providing diabetic education. **Dr. Edward Hertko,** of Des Moines, spoke on the prevalence of diabetes in Iowa.

Dr. Joseph Kehoe, of Davenport, discussed juvenile diabetes at a recent meeting of the Mississippi Valley Dietetic Association.

Dr. A. E. Braley, an Iowa City ophthalmologist, was guest speaker at a recent meeting of the Wilton Lions Club in Wilton Junction.

Dr. Glendon Button, of Conrad, spoke recently on "Brotherhood, Now or Never," at the Christian Church in Zearing. Dr. Button told of his experiences while accompanying a shipment of purebred hogs to Mississippi as part of an effort to help poor farmers achieve a self-support status.

Dr. Samuel D. Bovenmyer has assumed the ophthalmology practice of **Dr. Harold O. Gardner** in Waterloo. Dr. Gardner has retired. A native of Ottumwa, Dr. Bovenmyer received the M.D. degree at The U. of I. College of Medicine in 1963. He served his internship at Highland Alameda County Hospital in Oakland, California. In January of 1968, Dr. Bovenmyer completed his residency in ophthalmology at The U. of I. College of Medicine. A diplomat of the American Board of Ophthalmology, he recently completed two years of military service with the U.S. Army.

Dr. Joseph Spearing, of Harlan, attended the American Medical Association's December Conference on Sports Medicine in Boston.

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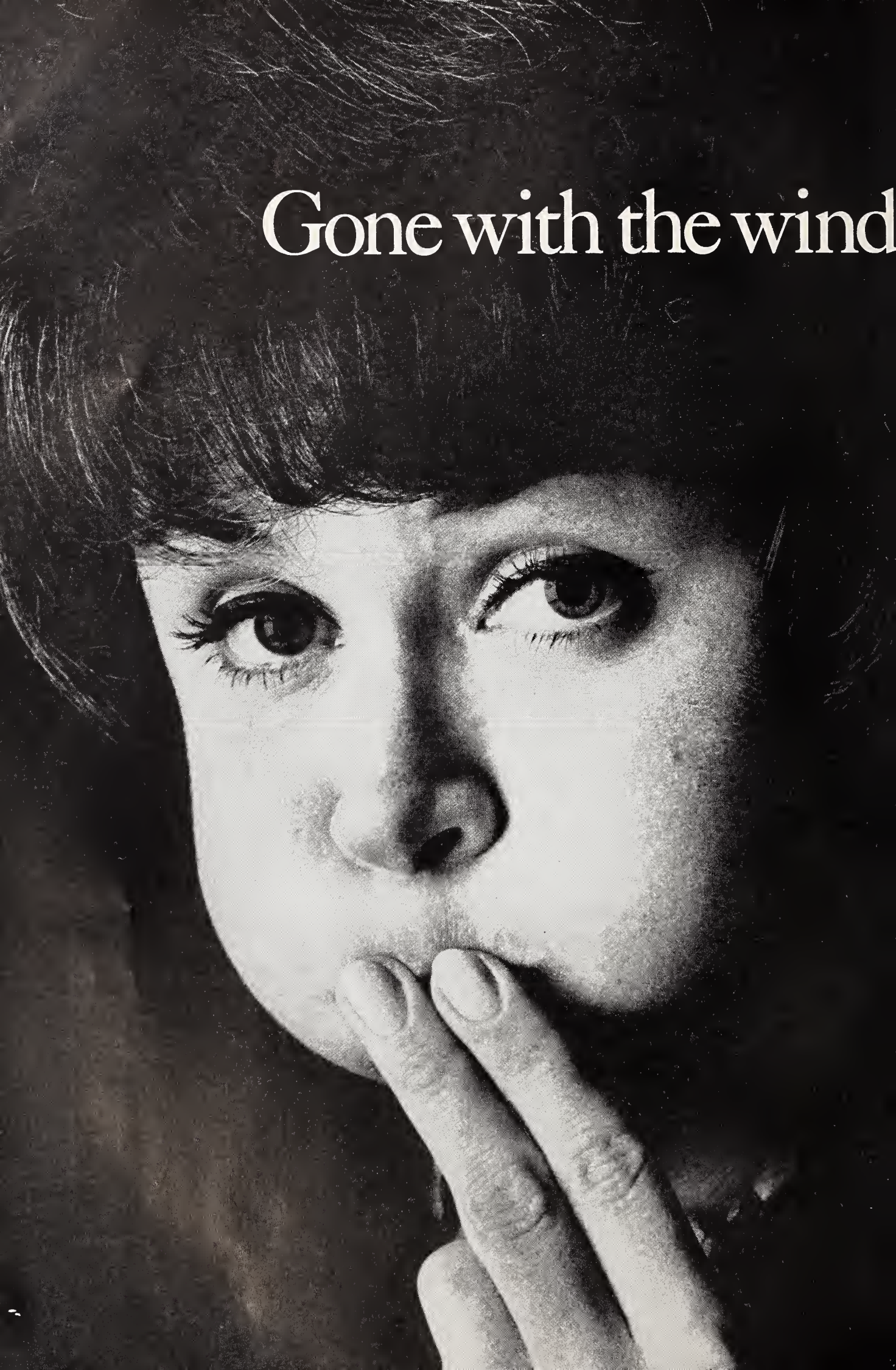
Gone with the wind

Dr. John Huston, a Cedar Rapids radiologist, has been elected to a three-year term on the Mt. Mercy College Board of Trustees. Dr. Huston serves as a trustee of Mercy and St. Luke's Hospitals in Cedar Rapids and is the secretary of the Iowa Radiology Society.

Dr. Charlotte Burns, assistant professor of ophthalmology at The U. of I. College of Medicine, was a guest speaker at a workshop in sports medicine held in Iowa City recently. The workshop was sponsored by the College of Medicine, Department of Intercollegiate Athletics, the committee on the Medical Aspects of Sports of the Iowa Medical Society and the Iowa High School Athletic Association. **Drs. C. E. Radcliffe, R. E. Hodges, C. B. Larson, C. L. Gillies, S. L. James,** and **W. D. Paul** were also on the workshop program.

At the annual meeting of the Poweshiek County Mental Health Association **Dr. Ada R. Perel,** medical director of the Poweshiek Mental Health Center, moderated a panel discussion entitled, "Psychiatry for the People."

Dr. D. G. Bock, of Fort Dodge, participated in a recent 10-day course in cardiology presented by the American College of Cardiology in Rancho Santa Fe, California.

Dr. Fred A. Hansen, of Red Oak, has been awarded the American Cancer Society's "Bronze Medallion and Citation" in recognition of his outstanding volunteer work with the Society. The presentation was made at a surprise ceremony in conjunction with the Society's Iowa Division annual meeting in Des Moines. The coveted award is presented each year to an outstanding Iowa volunteer by the American Cancer Society's National Board of Directors.

Dr. Michael Yannone, professor of obstetrics and gynecology at the U. of I. College of Medicine, spoke at a recent College of Pharmacy seminar on "Present Clinical Status of Oral Contraceptives."

Dr. Hugo A. Lindholm, of Estherville, a Fellow of the International College of Surgeons, attended that organization's Western Hemisphere Congress in Las Vegas in November. Scientific papers were presented by surgeons from England, France and South America as well as the United States.

Dr. George D. Aurand, of Clinton, was a recent guest speaker at a meeting of the Clinton Chapter of the American Association of University Women, the Clinton Rotary Club and the Clinton Kiwanis Club. At each of these meetings Dr. Aurand spoke for the repeal of Iowa's abortion laws.

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Congressman Fred Schwengel announced recently that **Dr. Walter Fox**, Superintendent and Area Director of the Mental Health Institute at Mt. Pleasant, has been invited to participate in the White House Conference on the Aging. Representative Schwengel said Dr. Fox has been invited to serve on the Technical Committee on Health (Social Rehabilitation Service).

Dr. Loran F. Parker, of Iowa Falls, has assumed the duties of associate director of medical education at Broadlawns Polk County General Hospital in Des Moines. Dr. Parker will work at Broadlawns to expand the family practice program in cooperation with The U. of I. College of Medicine. Dr. Parker has practiced in Iowa Falls since 1948.

Dr. Kazem Fathie, of Cedar Rapids, has been elected president of the Iowa Midwest Neurosurgical Society. **Dr. Horst G. Blume,** of Sioux City, was named secretary after serving as president last year.

Dr. Carol L. Plott, a surgeon with the Spirit Lake Medical Center, became a Fellow in the American College of Surgeons at the College's recent 1970 meeting in Chicago.

Dr. L. E. Allaman, director of the South Central Mental Health Center in Oskaloosa, was guest speaker at a November meeting of the Mahaska Hospital Auxiliary. Dr. Allaman presented facts on the organization, financial support, maintenance and services offered at the Center.

The new Alson E. Braley Conference Room in The University of Iowa Department of Ophthalmology was dedicated November 6. The room is named in honor of **Dr. Alson E. Braley** who was professor and head of the department from 1950 to 1967. Now a professor emeritus of the department, Dr. Braley is in the private practice of ophthalmology in Iowa City. The dedication address was given by **Dr. P. J. Leinfelder,** professor of ophthalmology at The U. of I. College of Medicine. **Dr. Frederick C. Blodi,** professor and head of ophthalmology, **Dr. Robert C. Hardin,** vice-provost and dean for health affairs; **Dr. Woodrow W. Morris,** associate dean of the College of Medicine; and **Dr. Gerhard Hartman,** director of University Hospitals also took part in the dedication ceremonies.

Dr. M. Lee McClenahan has joined **Dr. E. R. Gann** in the general practice of medicine in Sigourney. A 1960 graduate of The U. of I. College of Medicine, Dr. McClenahan completed his internship at a San Francisco, California, hospital, following two years of military service. He later completed his psychiatric residency at Stanford University, Palo Alto, California. Since that time he has been engaged in psychiatric practice and also the general practice of medicine at the General Hospital in San Mateo, California.

Dr. Paul C. Todd joined the staff at Collins Memorial Hospital December 1. Dr. Todd is a graduate of the University of Missouri Medical School and interned at Parkland Memorial Hospital in Dallas, Texas. He spent two years in the Air Force and has been in private practice in Marceline, Missouri, for the last four and a half years.

Drs. R. E. Mailliard and **James A. Cornish,** both of Storm Lake, participated in a diabetes seminar held in that community recently.

Dr. Harry Harper, Jr., of the Lee County Mental Health Center, addressed the Fort Madison Women's Club at their November meeting. Dr. Harper outlined today's mental health trends.

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Deaths

Dr. Christian H. Herrmann, 80, of Middle Amana, died November 1, following a brief illness. Dr. Herrmann received the M.D. degree at The University of Iowa in 1915. He interned at Montreal General Hospital and served as an officer in the medical corps during World War I. From 1918 until 1968, he practiced medicine in Middle Amana. Dr. Herrmann was a member of the medical staff of both Mercy and St. Luke's hospitals in Cedar Rapids and served as an officer on both staffs. He was a member of the Iowa Medical Society, American Medical Association and the American Association of Railway Surgeons.

Mrs. Jack Layton, the wife of Dr. Jack Layton, a former member of The U. of I. College of Medicine faculty, died in Tucson, Arizona, November 13.

Dr. Geraldine S. Wilhelmi, 49, of Sioux City, died November 1, after a long illness. Dr. Wilhelmi attended the University of Chicago and was graduated from the Creighton University Medical School in 1946. A specialist in allergic diseases, Dr. Wilhelmi had been in practice with her husband, **Dr. Raymond W. Wilhelmi**, in Sioux City since 1953. She was a member of the Iowa Medical Society and the American Medical Association.

Dr. Lucy M. Wood, 99, who formerly practiced medicine in Logan, died November 5 at the St. Vincent Home in Omaha, where she had resided for the past three years. Dr. Wood received the M.D. degree from the Northwestern University School of Medicine and interned at Women's Hospital in Chicago. She practiced in Logan from 1915 until her retirement in 1945.

Dr. Maryelda Rockwell, 61, a Clinton pediatrician for 28 years, died November 9, at Jane Lamb Hospital in Clinton. Dr. Rockwell received the M.D. degree in 1937 at the College of Medical Evangelists, Loma Linda University, Los Angeles. She interned at Los Angeles General Hospital and completed her residency in pediatrics at Children's Hospital in Columbus, Ohio. Dr. Rockwell was a member of the Iowa Medical Society, American Medical Association, the Iowa chapter, American Academy of Pediatrics, and an American Diplomate of the National Board of Medical Examiners.

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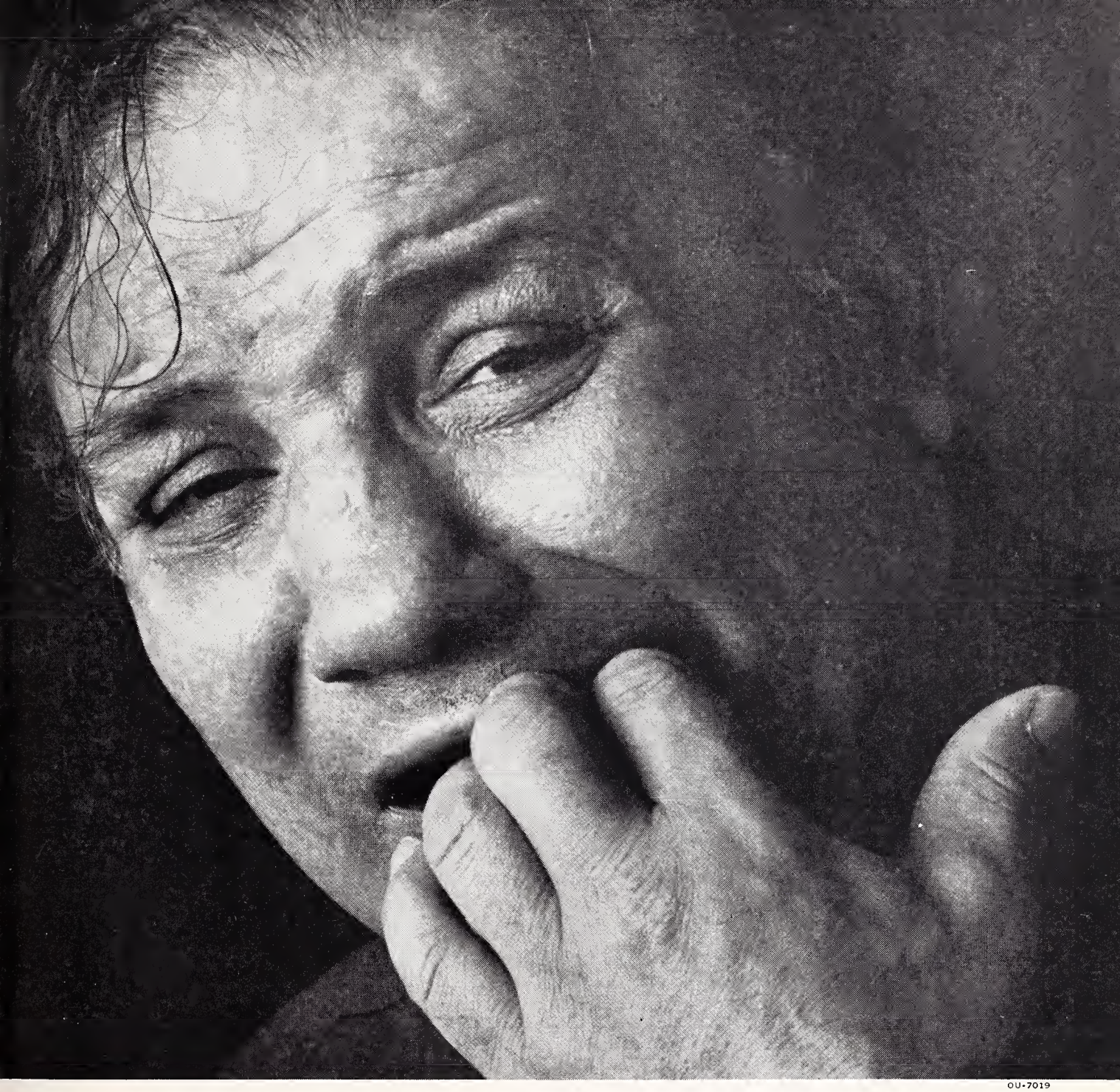

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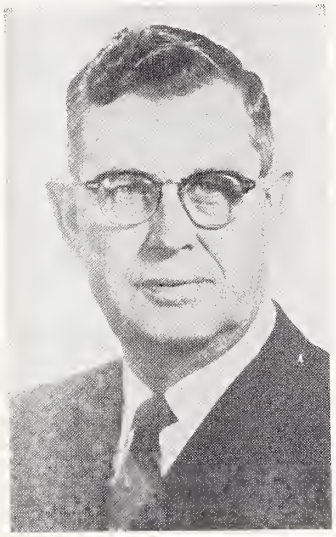

Your elected representatives in state and federal government are now actively engaged in the legislative process. Their deliberations and decisions are bound to have a regulatory effect on our lives, especially on the manner in which we practice our profession.

Because they represent us in the governmental process, these elected officials need and should have the benefit of our thinking whether it be pro or con.

Despite its shortcomings, our democratic process is still superior to the other governments of the world. We have a responsibility to support it. Let's speak out as individuals and as a medical profession on the important governmental issues of the day.

President

Caveats and Cheer for Student Companions

WILLIAM B. BEAN, M.D.
Iowa City

When the uneasy feelings of student restlessness and faculty concern about the curriculum began to produce major effects more than a decade ago, one sensed two phenomena. First, increasing social pressures for better and more medical care became articulate. These pressures, not always sensibly directed, made up in vigor and enthusiasm what they lacked in clarity. The second was the beginning of another student revolution. Students refused to remain passive bystanders. They wanted a piece of the action.

For a long time in some places meetings of faculty curriculum committees might just as well have been log-rolling sessions in the legislature. Lobbyists represented vested interests. These forces were reflecting back upon medical schools, while the biological revolution was transforming preclinical departments. Rote learning gave way to real science. The preclinical material got further and further away from any evident connection with a troubled person—the patient. Clinical teachers kept finding that students, wonderfully well trained as scientists in micro-whatever were not ready for triumphal initiation into the "important and awesome rituals and mysteries of studying and treating sick persons."

Commenting now on student dissent and opinion I speak as one who in his time, in mild, unobstreperous ways, was a rebel and a maverick. One of my first papers in college was entitled "A Plea for Illiteracy," based on my observations that mere capacity to read words without understanding them made many persons gullible who had never before been such an easy mark for city slickers or Madison Avenue. It seemed to shock my professors.

I think no one feels more acutely than I do serious failures in academic leadership and national leadership. I have been in one war and have seen enough to make me hate war with the conviction of experience. I am shocked by the credibility gap which exists between our government and the people. I am saddened by the motives of profit which often make news sensational and incendiary rather than a source of information about facts to lead people in a thoughtful confrontation with ideas.

Teachers, in the nature of teaching, cannot really help the young in their striving to make sense out of their own lives. For good or ill, teachers are not doers. They can remove obstacles; they can encourage; a few may even inspire; but the learning process, "*educare,*" the leading out, must come from within. Teachers can never drag the shackled or whip forward those yoked together in stubborn ignorance and conformity even if conformity is expressed in dissidence.

My suggestion that we seek greatness makes me urge that we stop to consider whatever happened to our lost standards, and the reason for losing them. Can we restore them? The medical profession and, in especial, the newest members of it, must provide the anvil of stability upon which all manner of strident and shrieking hammers may beat the malleable mass of social forces into institutions which are creative, healthy, and life giving.

We have been bewitched by the siren song of the mongers of moral relativity. They have eroded some of the capacity of American education. McLuhanism, which abolishes substance and content for process or medium, has removed goals and substituted means. No system of education can fulfill its responsibility of setting and checking standards for moral and ethical behavior if the educational philosopher persuades everyone that no such things exist. There is no record that ethically rudderless

---

Dr. Bean is Sir William Osler Professor in the Department of Internal Medicine at the U. of I. College of Medicine. This paper has been adapted from a College of Medicine commencement address delivered by Dr. Bean.

men have ever been wise pilots for society. Even the vigilant lookout, shouting exact warnings, is useless when the craft cannot be steered.

The backlash of firmness, if it concentrates on student revolt, misses the whole character and essence of the crisis of our times. Popular reaction to student violence may "firm up" the faculty and protect the rights of others. This is essential. But it is not treating, much less curing, the disease. Wanton destruction, violence, the drug menace, permissiveness, pre- and post-adolescent promiscuity which is said to be justified by candor, will not abate. The problem is not one of adding coerciveness and restraints. The core of the problem is the cultural abdication and the obligate meaninglessness of those who elect disinheritance from the past in order to join an existential, technologico-bedlamoid chaos. There is no hope unless society undertakes realistically a totally new commitment to a difficult new creative effort and then sustains the drive necessary to keep it going. We must literally produce an informed, educated, disciplined, and influential public, responsive and responsible, which not only the creative youth but statesmen, businessmen, publishers, writers, and the mass media can depend on, respect, and perhaps even fear. Then our *res publica* can hold its head high once more.

The only possible place for this rebirth to happen is in the universities. And the delivery room within the university should be in the hands of the medical students and faculty. We have unique experience in serving and conserving, in caring by giving care, in adding to knowledge, and in advancing learning by applying knowledge. As members of the truly oldest profession, you have an opportunity unique and terrifying. Failure to fulfil it spells the ruin of life as we know it. Not the atomic bomb, but the despair of the rootless and the folly of wanton violence must be recognized as putting and keeping the chalice of our fate in peril.

A DIGRESSION ON BLOOD

I now take a single example of many distinguished contributions made by members of your faculty of the College of Medicine as a token of its eminent excellence. I might have chosen anatomy, biochemistry, or any other field. Prophets and great men traditionally are without honor in their own country. It may surprise you to know that many members of your medical faculty are better known in other parts of this country and abroad than they are at home. There has been a systematic neglect of recognition of distinction of our own fine people and their work by students and faculty alike. All too often we hide our light rather than let it shine forth that others may see our good works.

My tale concerns the contributions made by members of the College of Medicine to the problem of blood transfusion, blood banking, and the development of a system of making blood available for transfusion in and just out of combat in World War II. This research and its application revolutionized the care of the wounded. After the war this experience led to a quantum step forward in the use and understanding of transfusion, not only in the trauma and carnage of our peaceful daily life but in the treatment of all manner of medical emergencies resulting from blood loss or shock.

Until the circulation was understood, the transfer or transfusion of blood from animals to man or from one person to another had no rational or even irrational reason for being. Just over 300 years ago Dr. Wren, later Sir Christopher Wren, suggested injecting various liquors such as milk or beer into the circulation of animals. Experiments began in 1666, were done chiefly by Richard Lower. The accounts were published in a series of papers in the Philosophical Transactions. Lower demonstrated that a dog could be exsanguinated and when apparently dead it could be restored by transfusion of blood directly into the jugular vein from the artery of another dog. He concluded that the "most probable use for this Experiment" would be for replacing blood lost, or rectifying corrupt blood.

The first experiments on man were done by Jean Denis, professor of Philosophy and Mathematics at Montpellier and physician to Louis XIV. Denis transfused nine ounces of lamb's blood into the arm of a boy who had been bled many times for fever and continued to be ill. He lived. Another man who seemed to be merely indisposed received what we would call a unit of sheep's blood. He survived. Another recipient had a hemolytic reaction, passing black urine.

The first transfusion of blood, man-to-man,

did not occur until 22 December 1818, in London, when James Blundell performed the operation of direct transfusion to help a surgeon. Of course, transfusions could not be successful until the typing of blood was understood, but this is a separate and long story.

The precipitating event which led Dr. Elmer DeGowin to establish in Iowa City the second blood bank in the country was his observation of a fatal transfusion reaction. It resulted from a problem in cross matching. Dr. DeGowin looked into the then rather informal way serum was obtained for typing blood. He began to lay the groundwork for what ultimately developed into a blood bank. New rules and regulations were put into effect for typing. Serum of high titer was obtained. Cross matching became accurate. The whole procedure was supervised.

By the late 1930's, Dr. Fantus had established a blood bank in the city of Chicago. Dr. DeGowin got Mr. Neff, the hospital superintendent, to send him there to learn what he could about it. Returning he established our blood bank. At this time assistance came from Dr. Plass of the Department of Obstetrics and Gynecology. He used money from his practice fund to help the Medical Department support a laboratory, get apparatus, and pay for a technician.

By now the clouds of war were becoming distended. Very little knowledge about transfusion was available from the experience of British and Allied Forces early in World War II. Techniques for the best way of storing blood had to be worked out. Preservative solutions were devised, studied, and compared. The length of time blood might be kept safely before it became ineffective or dangerous for transfusion had to be learned. Finally, the problems of refrigeration and sea or air transportation needed careful study. Some who were medical students, house officers, or colleagues at the time recall Dr. DeGowin's sending crates of blood by airplane from the Iowa City airport to the west coast and bringing them back, testing the blood and using it in transfusions to establish the safety of such outlandish practices.

Problems of refrigeration, air transport, time of safe storage, and possible reactions were worked out in detail. The results could be applied immediately when such matters were of capital importance. This work was vital to the Army. Dr. DeGowin became a member of the Subcommittee on Transfusion of the National Research Council. His experience was invaluable in establishing standards, quality control, and limitations of safety in transfusion.

Edwin J. Cohn stated that he "wanted the group [The National Research Council Subcommittee on Blood Substitutes] to realize that at a very early point in the history of the earlier Subcommittee Dr. DeGowin had started writing and talking about the necessity of using whole blood instead of blood fractions, and for the need to start immediately to develop a service of supply of blood to the Armed Forces."

While Dr. Robert Hardin was a resident, he became interested in transfusions and worked directly with Dr. DeGowin. As a member of the National Guard he demonstrated that technically untrained people could be taught how to collect, preserve, store, match, and transfuse blood. World War II was to see wide use of blood and blood substitutes, often administered by battalion aid men who had had a short intensive course of instruction in the crash program he originated.

Dr. Hardin ultimately became director of blood transfusions for the entire American Expeditionary Force in Europe. He had a unique and harrowing experience before the invasion of France. It was not possible to keep blood safely for more than about three weeks. Any sudden stockpiling of blood would have been noted by enemy agents. In order to confuse them, teams to collect blood were organized and sent repeatedly throughout Britain sometimes for blood, but many times merely on a dry run. It was impossible to detect any change in tempo when great quantities of blood were actually collected for the invasion. Dr. Hardin was the only person besides General Eisenhower and one or two others who did know precisely and well ahead of time when D-day was to be. This, he tells me, was an experience he does not want to repeat.

In a book called the HISTORY OF THE BLOOD PROGRAM IN WORLD WAR II, there are almost endless references to the contributions by physicians on our faculty. They added not only to the theory but the application of blood transfusion. This work saved lives and shortened the convalescence of many thousands of soldiers. The information so gathered later was put into

effect by Dr. Alsever and others for civilian use, under the auspices of the American Red Cross. They prevail all over the world today.

An exhibit epitomizing his work won Dr. DeGowin and his team the Gold Medal at an AMA convention. The book, BLOOD TRANSFUSION, by DeGowin, Hardin, and Alsever was an instant classic and is now a collectors item.

This little known story I have selected as one of many distinguished contributions made by members of the College of Medicine. Everyone connected with the School, University, and the State should feel great pride in all such achievements, and they are many.

WHAT MUST WE DO?

I. My program for action is, first, that we set up *absolute standards* rather than remain lost in the morass of moral relativity. To be sure such standards are not forever, but the whole history of man indicates that when standards of conduct suddenly decay, total permissiveness leads to total decline. Today, with mass communications and mass pornography, permissiveness is abused and taste no longer prevails. The lowest common denominator of portraying in words or pictures every form of aberration, action, or reaction, becomes accepted. All a writer has to do these days to become a best seller is to let the needle get stuck in his pornograph; and write, write, write. He will gather great royalties as a best seller. But, after a while the shock value wears off. The surfeit of four-letter words erodes their pungency. Nothing disturbs an obscene juvenile more than to realize that he or she is a tiresome yawn maker.

II. My second point has to do with the need for *good manners*. I have addressed myself to this subject on other occasions. Physicians in particular must remember that good manners, pleasant behavior, and that now largely defunct element called good taste are lubricants for the wheels on which society moves. These are needed today more than ever to mute the decibels when the wheels spin fast, as they do in our mechanized society. In a country which is strident, insensitive in personal relations, mesmerized by wealth, genuflects to power, is overbearing and grandiose, one should beware lest the juggernaut overwhelm humane and human concern for individual persons. The mass power of the industrial-military complex, the maniacal smashers of buildings and builders of new ones, the creators and corrupters of air travel and those who aim to cover the whole world with a carapace of concrete, only to dig it up and put pipes under it, show us how greed and striving for money cause the disappearance of peace and tranquility. Who can remember a time when he has seen a community where smiling was the rule and where peace and happiness prevailed?

III. My third element is a belief that all doctors must emphasize *human dignity*. It is hard to maintain, especially in the retrogressions which characterize illness, aging, and death. Physicians must exemplify human dignity. They must see that it is respected in others. It must modulate their relationships with patients. We must be worthy to receive and not divulge matters of personal trust. We should help all patients to achieve maturity. To be sure, our society has plenty of excitement. A certain largeness of vision, a bursting but often uncontrolled creativity, and widespread, though maldirected social concern abound. We need political daring and vision to end our social turmoils, and we need to restore respect among men based on concern and a sense of kindness. This is what human dignity is all about.

IV. The next thing we should pay attention to is to *avoid being seduced by* the celebrity mongers of the *mass media*. Those who have witnessed the cruel absurdities of the publicity about heart transplants and much else that goes on and is seen instantly in TV and newspapers are aware of our national belief in magic. Things which should be discussed amongst physicians and settled in scientific groups become garish and inaccurate gossip for the public. You will be tested by people coming to you with some oft repeated slogan or a clipping from TIME, READER'S DIGEST or some other scientific journal, exigent in demands for treatment which might be bad even if the patient had what she thought she had. You will also avoid the lure of playing the magician. We all have some belief in magic. Doctors caring for the sick must never let it beguile them into the illusion that they *are* magic.

It is not stretching points too far to emphasize that without a knowledge and understanding of history each generation naively inden-

(Continued on page 71)

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1. Duvoisin, R. C., *et al.*: *Trans. Amer. Neurol. Assoc., 94*: 81, 1969.
2. Cotzias, G. C.: *J.A.M.A., 210*:1255, 1969.

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Caveats and Cheer for Student Companions

(Continued from page 70)

tures itself in a sad but inevitable apprenticeship to error. As Santayana said, "Those who cannot remember the past are condemned to repeat it." Since true history is a long tale of mistakes, errors will be repeated more than great and good deeds. Those who give lip service to the notion that one should participate in the life of the community he lives in often have little understanding and practically no experience of what this really means. And, here, ignorance of religion, of government, of business, of economics, may be especially dangerous since we are so prone to be led about by those who skillfully harangue the multitude and by the seductive blandishments of dealers in snake oil.

Science now has put in everyone's hands powers undreamt of, even a generation ago. The academic forces which continue in the life of a good doctor are steadying influences which permit free discussion without dissidence for the sake of self-destruction. Thus we avoid the false generalizations upon which dictatorship gets its first stand. We must go back to the simple essentials of the beliefs of the founding fathers of the republic. Some of you will have the opportunity to be at the forefront in the continuing battle for academic freedom, but freedom, we should remember, is not condoning license but giving equal opportunity to all and defending the rights of everyone.

Finally I quote from John Bunyan's forgotten tract, JERUSALEM SINNER SAVED; or, GOOD NEWS FOR THE VILEST OF MEN. It describes one of my secret but, alas, unrealized ambitions.

"Physicians get neither name nor fame by pricking of wheals, or picking out of thistles, or by laying of plasters to the scratch of a pin: every old woman can do this. But if they would have a name and fame—if they would have it quickly, they must, as I said, do some great and desperate cures. Let them fetch one to life that was dead; let them recover one to his wits that was mad; let them make one that was born blind to see; or let them give ripe wits to a fool; these are notable cures; and he that can do thus, and if he does thus first, he shall have the name and fame he desires; and he may lie abed till noon."

Safety isn't everything in an antibiotic.

Until you need it.

Such as the time when tooth staining becomes a matter of consideration.

Or the patient has impaired kidney function.

Or there is a potential for a severe allergic reaction with a penicillin-sensitive patient.

There is no guarantee of safety, even with Erythrocin.

Mild allergic reactions, abdominal discomfort and rare monilial overgrowth may occur. But serious reactions are extremely rare. And after 18 years, there are no known toxic effects on vital organs, bone, blood, nerves or teeth.

We'll ask *you* the question. Have you ever seen a severe reaction with Erythrocin? 101281

ABBOTT

ERYTHROCIN®

ERYTHROMYCIN, ABBOTT

The potency you need -the safety you want

See next page for brief summary, listing indicated organisms, precautions, etc.

Erythrocin®

(ERYTHROMYCIN, ABBOTT)

Brief Summary

Indications

Erythrocin is indicated against gram-positive cocci — staphylococci (most strains), pneumococci and streptococci (including enterococci). Active against other pathogens, such as *Corynebacterium, Hemophilus, Clostridium, Neisseria,* and *Treponema pallidum,* the agents causing trachoma and lymphogranuloma venereum and primary atypical pneumonia caused by *Mycoplasma pneumoniae* (Eaton agent). Establish susceptibility of pathogenic organism when practical. Maintain therapeutic levels for ten days in the treatment of streptococcal infections to help prevent rheumatic fever and glomerulonephritis. Also consider local measures or surgery whenever indicated.

Contraindications

Known hypersensitivity to erythromycin. I.M. preparation also contraindicated in patients hypersensitive to the "caine" type of local anesthetics.

Precautions, Side Effects

Occasionally abdominal discomfort, cramping, nausea or vomiting may occur; generally controlled by reduction of dosage. Mild allergic reactions, such as urticaria and other skin rashes, may occur. Serious allergic reactions have been extremely infrequent; if hypersensitivity is encountered consider appropriate countermeasures, e. g., epinephrine, steroids, etc., and withdraw drug. The rare possibility of overgrowth of nonsusceptible organisms should be kept in mind; if it occurs withdraw drug and institute appropriate treatment. Local venous discomfort, generally mild, may occur with I. V. administration. I.M. preparation is suitable for deep intramuscular administration only; restrict use in children with small muscle mass. A mild transient local discomfort sometimes occurs following rectal insertion of Erythrocin Suppositories; discontinue if significant discomfort persists.

Administration and Dosage

I. ORAL: In adults with mild to moderate infections caused by readily-susceptible organisms 1.0 Gm. daily; more severe infections or those caused by less susceptible organisms 2.0 Grams daily; unusually severe infections up to 4 or more Gm./day. Daily dose in children is 15 to 25 mg./lb./day depending upon severity of infection. Daily dose should be administered in divided doses at 4-to-6 hour intervals. Continue treatment for at least 48 hours after symptoms have subsided and temperature has returned to normal. In fulminating or life-threatening infections, a parenteral form of erythromycin is preferred.

II. PARENTERAL: Intravenous administration may be continuous or intermittent (6 to 8 hour intervals); 1 to 4 Gm. daily in adults; 15 to 25 mg./lb./day in children, depending upon severity of infection. Recommended I.M. dose is 100 mg. (2 ml.) for adults, 50 mg. (1 ml.) for children 30 lbs. or more and 1.4 to 1.8 mg./lb. in smaller children. Injections are usually given at 6 to 8 hour intervals; may be given at 4 to 6 hour intervals for severe infections.

III. RECTAL: Following therapeutic doses are recommended in children: to 20 lbs., 1-125 mg. suppository every 8 hours; 20 to 40 lbs., 1-125 mg. suppository every 6 hours.

Change to oral therapy as soon as practicable.

101281

ABBOTT

MEDICAL MEETINGS

IN STATE

Mar. 30 — **Diet Therapy U. S. A.—Digestion: Maxi, Midi and Mini, University of Iowa,** Iowa Memorial Union, Iowa City.

CONTINENTAL U. S.

Feb. 17-19 — **Postgraduate Course on Medical Complications in Pregnancy sponsored by American College of Physicians, and University of Southern California,** Ambassador Hotel, Los Angeles.

Feb. 18-19 — **Postgraduate Course on Clinical Otorhinolaryngology sponsored by University of Nebraska Medical Center,** Omaha.

Feb. 18-19 — **20th Annual Postgraduate Symposium on Hearing and Speech sponsored by University of Kansas School of Medicine,** Battenfeld Auditorium, Kansas City, Kansas.

Feb. 19-20 — **Postgraduate Course on Perils of Medical Management,** The Wisconsin Center, University of Wisconsin, Madison.

Feb. 21 — **23rd Annual Program of American Academy of Forensic Sciences,** Del Webb's Towne House, Phoenix.

Feb. 22-24 — **26th Annual Postgraduate Symposium on Surgery sponsored by University of Kansas School of Medicine,** University of Kansas Medical Center, Kansas City, Kansas.

Feb. 24 — **4th Annual Postgraduate Symposium on Mentally Handicapped Child sponsored by University of Kansas School of Medicine,** Crest Theater, Great Bend, Kansas.

Feb. 24-25 — **Postgraduate Course on Review of Connective Tissue Diseases by Systems: Manifestations and Management sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 1-6 — **Annual Meeting of Society for Cryosurgery,** Diplomat Hotel and Country Club, Hollywood, Florida.

Mar. 3-4 — **Update 1971—Selected Topics in Nursing sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 4-6 — **Annual Meeting of Society for Contemporary Ophthalmology,** Diplomat Hotel and Country Club, Hollywood, Florida.

Mar. 7-12 — **Problems and Approaches to Diagnosis and Management of Cardiopulmonary Failure sponsored by University of Miami School of Medicine and American College of Chest Physicians,** Miami Beach.

Mar. 8-12 — **Postgraduate Course on Advances in Medical Oncology sponsored by American College of Physicians,** Shamrock Hilton Hotel, Houston.

Mar. 10-11 — **Postgraduate Course on Advances in Urology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 15-17 — **18th Combined Meeting for Doctors and Nurses sponsored by American College of Surgeons,** Fairmont Roosevelt and Jung Hotels, New Orleans.

Mar. 15-18 — **Postgraduate Course on Modern Advances in Hematology sponsored by American College of Physicians,** New York Hospital Medical Center, New York.

Mar. 15-26 — **Postgraduate Course in Laryngology and Bronchoesophagology,** University of Illinois Medical Center, Chicago.

Mar. 17 — **2nd International Symposium on Early Disease Detection,** University of Chicago Center for Continuing Education, Chicago.

Mar. 17-18 — **Postgraduate Course on Blood Banking sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 18-20 — **Postgraduate Course on Office Management of Emotionally Disturbed Patient sponsored by Department of Psychiatry, University of Minnesota and Minnesota Academy of General Practice,** Nolte Center for Continuing Education on Minneapolis Campus, Minneapolis.

Mar. 18-20 — **National Medicolegal Symposium jointly sponsored by American Bar Association and American Medical Association,** Americana Hotel, New York.

Mar. 24-25 — **Postgraduate Course on Medical Progress and Its Relationship to Dentistry sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 25-26 — **24th National Conference on Rural Health,** Atlanta Marriott Motor Hotel, Atlanta.

Mar. 30-Apr. 1 — **Postgraduate Course on Updating Neurology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

ABROAD

Apr. 30-May 20 — **Medical Seminar Cruise to Mediterranean sponsored by Department of Postgraduate Medicine, Albany Medical College,** Ports of call include Casablanca, Naples, Genoa, Cannes, Barcelona, and Lisbon.

Continuing Education Courses & Conferences

Please call or write Office of Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-4792.

1971

Feb. 16-19 — **Refresher Course for the Family Practitioner**

Feb. 27 — **Refresher Course on Cerebrovascular Disease**

Mar. 3 — **Ophthalmology Clinical Conference**

Mar. 24 — **Refresher Course on Cerebrovascular Disease**

Mar. 24 — **Vision Workshop for the Generalist**

Apr. 7 — **Ophthalmology Clinical Conference**

Apr. 9-10 — **In-House Conference for Practitioners**

Apr. 28 — **Refresher Course on Cerebrovascular Disease**

U. of I. College of Medicine

IOWA MEDICAL MISCELLANY

Among early legislative proposals before the Iowa General Assembly is one concerned with drug abuse. The bill closely parallels nationally-proposed model legislation and will bring Iowa into conformance with the new federal Comprehensive Drug Abuse Prevention and Control Act of 1970. The Society has been successful in gaining modification of the bill's language as it pertains to the definition of *administer* and *dispense;* another concern of the Society, a requirement that the practitioner be present at every administration of a controlled substance, is under review.

* * *

Another bill now being considered by state lawmakers is one which authorizes 18-year-olds to donate blood without parental consent.

* * *

The Society's legislative representatives will be guided during the 1971 General Assembly by the following Executive Council-approved statement: "The Iowa Medical Society will not oppose efforts by the Des Moines College of Osteopathic Medicine and Surgery to obtain tax support from the State of Iowa so long as assurances can be given that the University of Iowa College of Medicine will continue to receive adequate financial support for its existing and projected programs of medical education, which envision expansion of the entering class to 200 students at the earliest possible date."

* * *

New IMS Committees on Drug Abuse, Physicians' Assistants and Architectural Education have been appointed recently. Members are: Drug Abuse: R. M. Bittle, Iowa City; W. J. Bennett, Marion; J. A. Bullard, Decorah; R. W. Overton, Des Moines; C. E. Radcliffe, Iowa City; Hormoz Rassekh, Council Bluffs; R. N. Swaney, Iowa City; Kirk Strong, Fairfield, and O. N. Glesne, Ft. Dodge. Physicians' Assistants: J. H. Kelley, Des Moines; J. K. MacGregor, Mason City; Arnold Reeve, Des Moines; Paul Seebohm, Iowa City, and J. C. MacQueen, Iowa City. Architectural Education: J. E. Kelsey, Des Moines; M. E. Kraushaar, Ft. Dodge; W. R. Bliss, Ames; A. W. Boone, Davenport, and D. E. Howard, Sioux City.

* * *

Recent SSA announcement of the pending boost in Medicare Part B monthly payments from $5.30 to $5.60 cited higher physicians' fees as a principal reason. The SSA statement drew sharp reaction. AMA President W. C. Bornemeier, M.D., advised SSA use of 1969 (instead of '68) charge data at the 75th percentile (instead of 83rd) will leave Medicare reimbursement near the 1968 level. This is so even though physicians must pay 1971 prices for employees, office space, etc.

* * *

In a 1970 ruling the Illinois Supreme Court declared that blood supplied for transfusion was subject to the products liability doctrine. This ruling runs counter to the position heretofore held, i.e., that all aspects of blood transfusing constitute a service. 1969 action by the Iowa General Assembly appears to resolve problems posed by the Illinois decision. The General Assembly approved this language: "The procurement, processing, distribution or use of whole blood, plasma, blood products, blood derivatives and other human tissues such as corneas, bones or organs for the purpose of injecting, transfusing or transplanting any of them into the human body is declared to be, for all purposes, the rendition of a service by every person participating therein and, whether or not any remuneration is paid therefor, is declared not to be a sale of such whole blood, plasma, blood products, blood derivatives or other tissues, for any purpose, subsequent to enactment of this section." The IMS Committee on Blood Banking is studying this matter.

* * *

Updated information on the uses of anticoagulant drugs is contained in a revised and re-designed edition of the American Heart Association booklet, "A Guide to Anticoagulant Therapy." The booklet and numerous other reference materials may be obtained from the Iowa Heart Association, 529 Thirty-sixth St., Des Moines, Iowa 50312.

* * *

The IMS Executive Council will meet at Society Headquarters on Wednesday, February 24.

* * *

Iowa physicians presently serving on councils and committees of the American Medical Association are four in number. They are Donovan F. Ward, Dubuque, Council on Legislation; R. C. Carney, Iowa City, Committee on Cutaneous Health and Cosmetics; C. H. Denser, Jr., Des Moines, Committee on Quackery; and R. H. Flocks, Iowa City, Interspecialty Committee. O. D. Wolfe, Marshalltown, has recently been named to the Board of Directors of the American Political Action Committee.

Delegates Approve Iowa Foundation

Meeting in special session for the sixth time in 33 years, the House of Delegates of the Iowa Medical Society Sunday, January 24, authorized the establishment of an Iowa Foundation for Medical Care.

By a vote of 62 to 28 the members of the House adopted a Report from the Society's Board of Trustees which concluded with this recommendation:

"That the House of Delegates authorize an Iowa Foundation for Medical Care and that it assign to the Board of Trustees responsibility for preparing the necessary organizational documents for presentation, review and ratification by the House of Delegates at its annual session in April."

Society President J. H. Sunderbruch, M.D., Davenport, and Board Chairman K. E. Lister, M.D., Ottumwa, presented the Board Report which contained 13 "basics that we believe should be included in an Iowa Foundation for Medical Care."

The complete Report of the Board of Trustees will be included in the March issue of the JOURNAL.

In a brisk two-hour discussion following the formal Report, advocates and foes of the Foundation mechanism advanced their views. L. D. Caraway, M.D., Monticello, presided as Speaker of the House.

Supporters of the Foundation concept cited the need for the profession to act promptly and ahead of the fact by creating an instrument to thwart further governmental control of professional review; particular reference was made to the implications of the Bennett amendment. The Foundation proponents generally offered expressions which underscored this passage from the Board Report:

"The Foundation appears to possess the means by which the profession can be positive in discharging its responsibility for directing the delivery of health care, and it can be made elastic enough to meet the changing circumstances which seem inevitable."

Those opposed to the Foundation offered various reasons for doing so, including a lack of understanding of the particulars, reservation as to the urgency, fear as to the high cost of the formative process, interest in its ability to operate on a statewide basis, concern over its vulnerability to governmental edicts, etc.

The Board of Trustees must now develop that legal language on which the Foundation is to be built and submit it for review and ratification by the House of Delegates at its Annual Meeting in April.

Hear Ye! Hear Ye!

1971 Iowa Medical Society Annual Meeting

A Diversified Program for IMS Members

April 25 to 28

Seminars, Demonstrations, Self-Assessment Quizzes

Hotel Fort Des Moines

Iowa Senator Jack Miller to Speak

Hold the Dates on Your Calendar

Hear About Physicians' Assistants, Drugs, Ecology

STATE DEPARTMENT OF HEALTH

ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Malaria—A Physician's Alert

Malaria has been diagnosed in 26 patients in Iowa during the period January 1 to November 21, 1970. All of these patients are military personnel who acquired their infections outside the United States. Most of the infections have been with Plasmodium vivax (20 cases—77 per cent). Four infections were with P. falciparum (15 per cent). In two instances the species of plasmodia was not identified with certainty.

Falciparum malaria is a very serious disease. The heavy parasitism with damming of small, important vessels can lead to sudden severe illness and quick death unless there is prompt intervention. Chloroquine was previously thought to be uniformly effective in the treatment of falciparum malaria. During the past decade, however, chloroquine-resistant strains have been found to be responsible for many infections with P. falciparum acquired in Southeast Asia, including in Viet Nam. Chloroquine prophylaxis has been relatively unavailing and treatment with this drug has not proved satisfactory. Strains of chloroquine-resistant P. falciparum have been detected also in the Philippines and in certain parts of South and Central America. Quinine currently represents the drug of choice for terminating acute attacks of falciparum malaria acquired in areas where such strains have been encountered.

Vivax malaria is by far the most common form of imported malarial infection. Acute attacks of vivax malaria respond well to treatment with chloroquine, but chloroquine acts only on the erythrocytic forms of the malaria parasites. Treatment with chloroquine alone may leave the extra-erythrocytic forms still viable in the patient. Concomitant administration of primaquine will usually result in the elimination of all remaining parasites from the patient and will prevent relapses of vivax malaria in most instances.

Falciparum malaria is potentially a dangerous disease and prompt diagnosis is critical. Malaria should be suspected in any patient who has a febrile illness and who has resided in or visited a malarious area in recent weeks, months, or even several years. Malaria remains endemic in many areas outside the United States, Canada, and Europe. Strained blood smears should be very carefully examined for parasites. Accurate identification of species is of extreme importance because of the situation with respect to treatment. When malaria parasites are demonstrated in the blood, the initiation of correct therapy must be prompt if serious deterioration of the patient is to be prevented. Several patients transferred to referral hospitals have been so gravely ill with falciparum malaria that only heroics have saved them.

Rehabilitation Service

The Iowa State Department of Health is happy to have a rehabilitation service in operation once again. Two occupational therapists, Miss Carol Black and Mrs. Joan Radiker, and one recreation therapist, Miss Carol Heim, are available now to staff this service and on request will provide consultant services aimed primarily at assisting nursing and custodial homes in the development and implementation of activity programs.

These therapists are prepared to help a new activity director in developing an activities program, or in the absence of an activity director they are willing to train a volunteer director or group of volunteers.

For those who have already developed an activities program, they can serve as a resource for ideas and may supply a variety of programming aids or assistance with a specific programming area. Health facilities may make requests for other specific assistance.

In addition, the occupational therapists are available to present in-service training to a nursing staff on the use of self-care activities. They will also serve as a resource for the training of homemaker health aides.

For further information, write: **Miss Carol Black, OTR, Director, Division of Rehabilitation, Chronic Illness and Aging Service, Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa 50319. Telephone: 515 281-5442.**

Morbidity Report for Month of December 1970

Diseases	Dec. 1970	1970 to Date	1969 to Date	Most December Cases Reported From These Counties
Actinomycosis	1*	1*	0	Worth
Amebiasis	1*	2*	1*	Marion
Brucellosis	8	60	41	Dubuque
Chancroid	2	2	0	Dubuque
Chickenpox	812	5876	5192	Black Hawk, Polk
Conjunctivitis	48	380	397	Cherokee, Clinton, Grundy, Scott
Encephalitis				
Echo 9	1	4	0	Cerro Gordo
type unspecified	1	3	8	Boone
German measles	19	2093	2534	Des Moines, Monroe
GI tract viral infection	1385	1649	268	Scattered
Gonorrhea	573	5621	4360	Scattered
Hepatitis				
Infectious	33	350	380	Polk, Pottawattamie
Serum	2	3	4	Linn, Polk
Histoplasmosis	3	22	22	Jackson, Scott, Tama
Impetigo	89	777	745	Black Hawk, Linn, Polk
Infectious mononucleosis	93	597	528	Johnson
Malaria, imported				
P. vivax	3	24	20	Polk, Sac, Wright
Measles	14	1144	362	Black Hawk
Meningitis				
Bacterial	1	2	1	Hamilton
Echo 3	1	5	2	Polk
Echo 9	1	5	2	Wayne
Viral	3	11	6	Marion Pottawattamie
type unspecified	1	16	27	Woodbury
Mumps	467	3546	4533	Black Hawk, Des Moines, Marion, Polk
Pneumonia	158	1006	605	Pottawattamie, Scott
Rabies in animals	20	136	103	Scattered
Rheumatic fever	4	54	34	Lee, Pottawattamie, Scott, Webster
Salmonellosis				
S. enteritidis	1	139	5	Polk
S. heidelberg	1	3	1	Scott
S. litchfield	1	4	0	Polk
S. panama	1	2	12	Davis
S. reading	1	1	0	Polk
S. typhimurium	3	33	41	Chickasaw, Linn, Polk
Shigellosis				
S. sonnei	4	80	121	Dubuque
Group D	1	1	1	Pottawattamie
Streptococcal infections	711	6904	4952	Johnson
Syphilis	72	543	742	Scattered
Tuberculosis, active	15	131	128	Scattered
Whooping cough	2*	22	18	Black Hawk, Fayette

* Delayed

What Iowa doctors need is a Malpractice Liability Carrier that won't fade when trouble comes.

Contact your local agent, or,

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Denver, Colorado 80202 (303) 825-0161

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5
6

the night shift of depression... insomnia

Depression is a 24-hour-a-day problem. And insomnia is often its nocturnal expression. In fact, insomnia may be a key symptom in establishing the diagnosis of depression.

ELAVIL HCl (Amitriptyline HCl, MSD) may prove quite helpful when you have arrived at such a diagnosis. Unlike psychic energizers or agents that merely elevate mood, ELAVIL HCl embodies a mild antianxiety action which manifests itself even before the fundamental antidepressant activity of the drug becomes evident. Daytime drowsiness occurs in some patients, usually within the first few days of therapy.

NOTE: Not recommended during the acute recovery phase following myocardial infarction. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Contraindications: Known hypersensitivity. Should not be given concomitantly with or within at least 14 days following the discontinuance of a monoamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl cautiously with gradual increase in dosage until optimum response is achieved. Not recommended during the acute recovery phase following myocardial infarction or for patients under 12 years of age.
Warnings: May block the antihypertensive action of guanethidine or similarly acting compounds. Should be used with caution in patients with a history of seizures or urinary retention, or with narrow-angle glaucoma or increased intraocular pressure. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. Safe use during pregnancy and lactation has not been established; in pregnant patients, nursing mothers, or women who may become pregnant, weigh possible benefits against possible hazards to mother and child.
Precautions: When used to treat the depressive component of schizophrenia, psychotic symptoms may be aggravated; in manic-depressive psychosis, depressed patients may experience a shift toward the manic phase, and paranoid delusions, with or without associated hostility, may be exaggerated; in any of these circumstances, it may be advisable to reduce the dose of amitriptyline HCl, or to use a major tranquilizing drug, such as perphenazine, concurrently. When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.
Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.
Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.
How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.

For more detailed information, consult your MSD representative or see the Direction Circular. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

when the diagnosis is depression

ELAVIL® HCl
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MSD MERCK SHARP & DOHME

THE DOCTOR'S BUSINESS

TIME—A SCARCE COMMODITY FOR PHYSICIANS

LARRY E. LEAVERTON
Des Moines

One of the most common problems for busy physicians today is how to meet the increased demands on their time. Why is it that one doctor can take a large practice in stride, never appearing to be hurried, while another with a comparable patient load is constantly fighting the clock to keep up the pace.

It is becoming more and more important to find time to keep up with new developments in the medical field, and in the entire health industry. It is easy for a busy physician to convince himself he has no time to be concerned with details of practice management, however, it is frequently due to the *neglect* of these details that he is so busy.

What are some of the problem areas of time management that we encounter?

Poor communications—The forgotten appointment; repeated explanation of a medical problem; instructions to patients or instructions to office personnel. If the message is garbled or confusing, the patient or employee must stop, guess, or try to clarify the information. All of this takes time. Make yourself understood. Be sure you are not misunderstood.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

Delegation—It is no longer a case of whether to delegate. It is rather what *more* can be delegated. It is no longer optional. One doctor has commented he could do a real good job with his complete physicals by doing everything himself if he saw only three or four patients per day, but he would be doing an extremely poor job of meeting the health needs of his community.

Improper or inadequate staffing—You must have capable medical assistants, in sufficient number to meet the needs of your office.

The location of your office—Commuting time in many towns and cities is excessive. An office near or handy to your hospital will save travel time.

Improper layout—To have a smooth flow of traffic, an efficient layout with an adequate number of rooms is necessary.

A lack of time-saving equipment and supplies is noticed in many offices. Have you investigated the use of electric typewriters, dictating equipment, and intercoms? Disposable supplies, standard forms for instructions to patients, history questionnaires, and standard insurance forms will increase your productive time and that of your medical assistants.

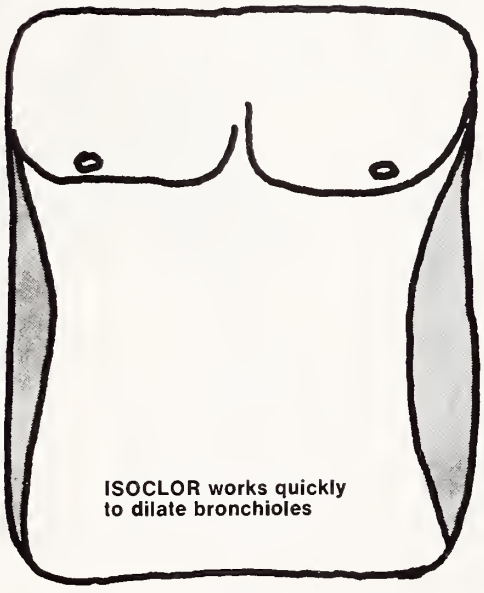
Many offices do not have a workable appointment system. Analyze your appointment book at the end of a trying day and see if you can improve your scheduling. Was there too much or too little time for some patients? Should there have been more emergency time?

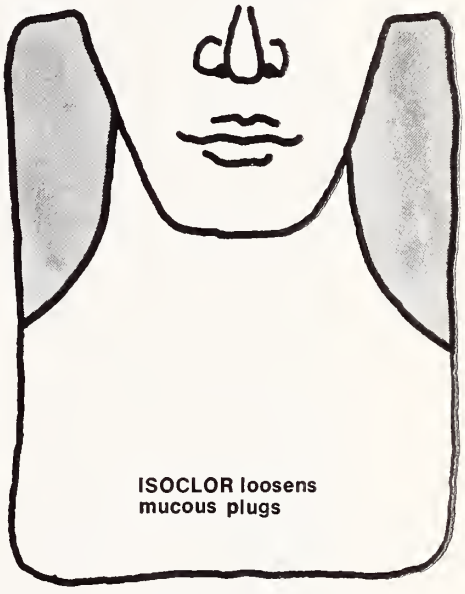
Accumulated histories and correspondence—Many busy physicians are saving time by dictating progress notes and letters immediately, rather than letting them pile up. Additional time is necessary days or weeks later. The average person writes at about 20 words per minute but dictates at approximately 60 to 100 words per minute. During a busy day a significant amount of time can be saved.

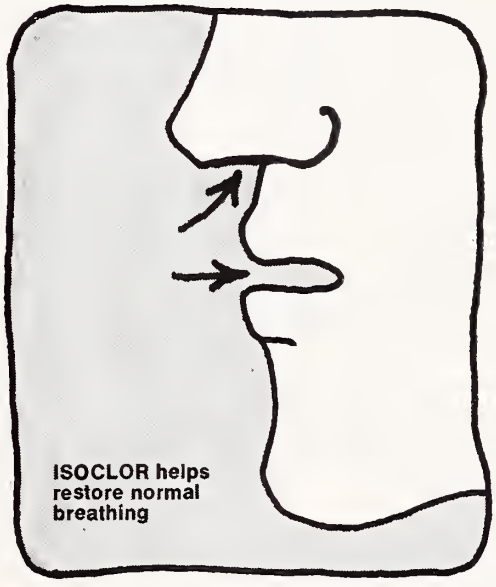
Finally, try saying *no*—when you are overextended. Be selective with your time.

There are hundreds of books and stories that have been written on how to squeeze more time into the day and get more accomplished. A story attributed to Charles Schwab of Bethlehem Steel tells of a system suggested to him by a management consultant. The consultant handed Mr. Schwab a blank sheet of paper and told him to list the things he hoped to accomplish tomorrow in order of importance. Tomorrow morning he was to start on number one and stay with it until it was completed, then move on to number two. He was not to worry if he did not complete the list, as he wouldn't have anyway without the list. The most important things would be completed before the less important ones. Mr. Schwab has stated that this was the most profitable lesson he ever learned in his business career.

HERE ARE THE COLD FACTS:







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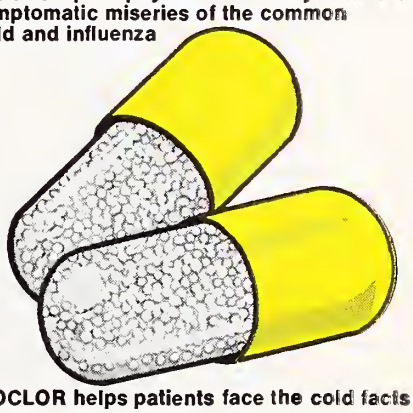

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Scientific Articles

The Worn Out Knee

DONALD B. KETTELKAMP, M.D., and
M. PAUL STROTTMAN, M.D.
Iowa City

THE OLDER PATIENT with a painful knee frequently receives aspirin, a cane, and the advice that since his knee has *worn out*, nothing can be done and he must live with it. However, additional treatment will decrease the patient's symptoms and increase his level of physical activity. This discussion presents a method of approaching the *worn out* knee and describes our current methods of treatment. The term *worn out* knee, as used here signifies a knee with joint space narrowing or obliteration with the preservation of some motion. In addition, most of these knees have osteophytes, and many have a bow-legged (genu varus) or knock-kneed (genu valgus) deformity. This definition and these findings occur in degenerative, posttraumatic and rheumatoid arthritis. Except where specified, this discussion refers primarily to degenerative and posttraumatic arthritis of the knee.

The physician's first problem when seeing an older patient with a painful knee is to establish the diagnosis and the cause of the pain. Usually the patient relates the onset of symptoms to minor trauma. Frequently this trauma will occur while squatting, or while rising from a squat position or from a chair, while walking upstairs or on rough ground, or while pivoting or twisting. *Locking* or recent specific major injury are uncommon complaints. If the patient has a flexion, or a varus or valgus deformity, the duration and rate of progression should be known.

The primary symptoms in degenerative arthritis may be caused by problems which can be treated specifically. The physician needs to determine when specific correctable problems exist.

It is helpful to divide the potential sources of difficulty into those that are primarily intra-articular and those that are primarily extra-articular.

INTRA-ARTICULAR PROBLEMS

The most frequent causes of intra-articular problems are meniscal derangement, either tears or cystic degeneration, loose bodies, osteophytes, synovitis and patellofemoral arthritis.

The physician usually associates meniscal tears with the young and with competitive athletics. Tears are also quite common in the degenerative knee. The major features are joint line pain and tenderness, a tender palpable bulge at the joint line with the knee extended and a mild intermittent effusion. Cystic degeneration more frequently involves the lateral meniscus. Mild aching, variable swelling and a cystic mass along the joint line with the knee in extension characterize this lesion.

Loose bodies may produce intermittent catching or locking. Often they can be palpated when they are in the anterior or suprapatellar

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Both authors are faculty members at the U. of I. College of Medicine. Dr. Kettelkamp is an associate professor in the Department of Orthopedic Surgery. Dr. Strottman is an assistant professor in the Division of Rheumatology.

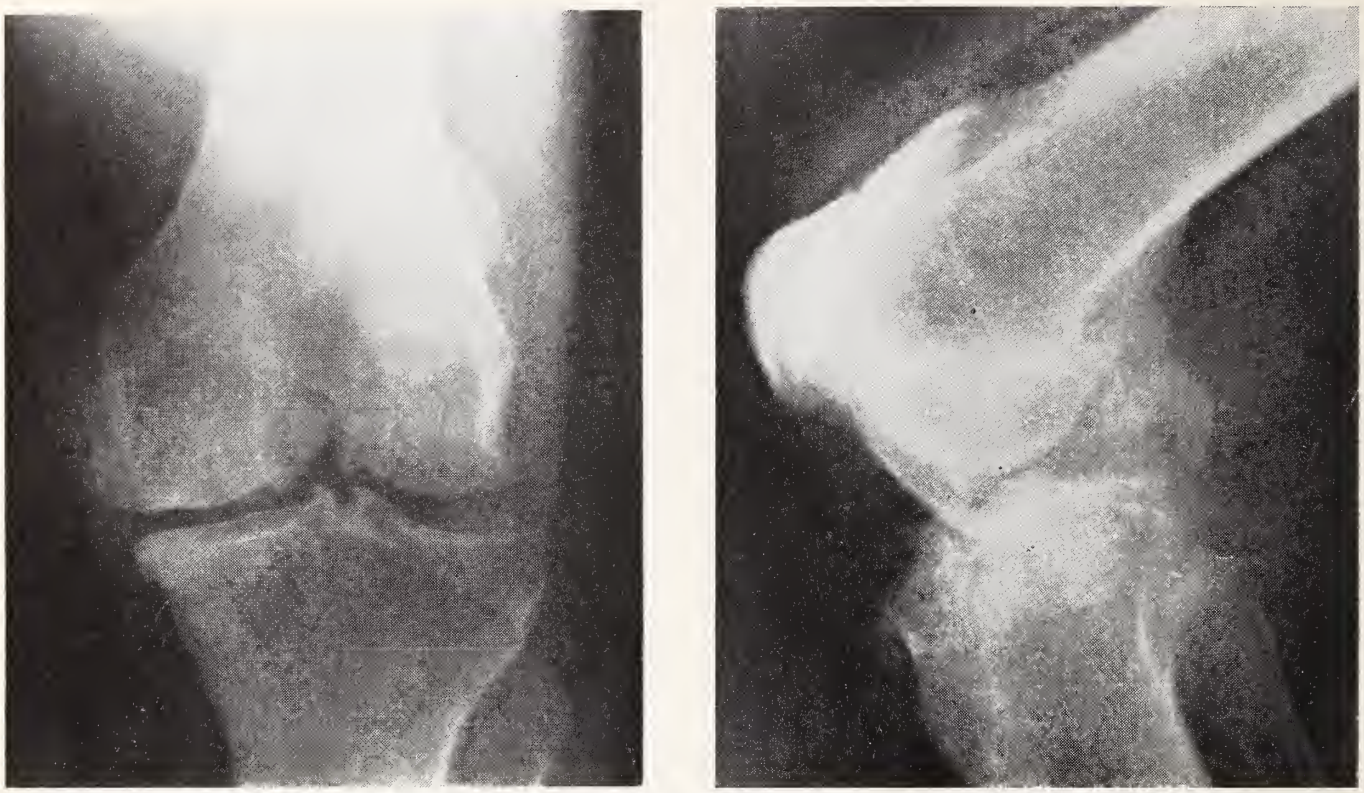


Figure 1. Anterior-posterior and lateral roentgenograms demonstrate loose bodies in the posterior compartment and the intercondylar notch. Large osteophytes are present on the medial and lateral femoral condyles and in the intercondylar notch.

area. Ossification of the loose bodies makes them radio-opaque, and a roentgenogram confirms the diagnosis and location (Figure 1).

In the degenerating knee the reparative response produces osteophytes which may become quite large (Figure 1). Those along the medial femoral condyle can often be palpated early when they are easily missed on the roentgenogram. Osteophytes per se are not painful. However, occasionally the synovial inflammation adjacent to a forming osteophyte results in pain. Synovial membrane rubbing over an osteophyte can produce synovitis with pain and mild effusion. Rarely an osteophyte fracture will produce pain and a loose body.

Synovitis secondary to any of the previously mentioned problems can be painful and produce an effusion. Primary synovial disease is uncommon in degenerative joint disease.

The symptoms of patellofemoral arthritis consist of poorly localized anterior knee discomfort, usually aggravated by stair climbing. The findings are tenderness along the patellar margins, patellar compression pain and patellofemoral crepitus.

EXTRA-ARTICULAR PROBLEMS

The deformities of varus, valgus or flexion, and strain of the capsule or ligaments constitute the major extra-articular problems.

Flexion deformity of 10 degrees or less is compatible with satisfactory function in the degenerated knee. Severe flexion deformity often requires traction, casts or posterior capsulotomy when it responds poorly to quadriceps exercises. The loss of joint space and often of bone on one side of the joint produces the varus or valgus deformities seen in these patients. As the deformity increases, the pressure on the affected side increases and leads to progression of the deformity. Generally, the deformity progresses much more rapidly in rheumatoid arthritis than in degenerative arthritis. In addition, intra-articular problems, notably meniscal tears, and capsular strain occur frequently.

Capsular and ligamentous strain usually follow a varus (bow-leg) or valgus (knock-knee) deformity. Occasionally, subluxation or *shift* of the joint associated with lax ligaments and capsule produces capsular and ligamentous strain.

Examination demonstrates tenderness over the ligaments or capsule and pain when stressing the joint.

Roentgenographic examination should include anteroposterior views, both non-weight-bearing and weight-bearing, a lateral view, tunnel (intra-condylar) view and patellar view. The anteroposterior weight-bearing view often demonstrates obliteration of the joint space, varus or valgus deformity and subluxation which cannot be shown on the recumbent anteroposterior film (Figure 2). The patellar view will show any osteophytes on the medial condylar margin and the patella, and narrowing of the patellofemoral articulation. The lateral and tunnel views contribute additional information regarding joint space narrowing, osteophytes and the location of loose bodies.

Figure 2. Anterior-posterior roentgenograms of a knee non-weight bearing and weight bearing. The relationship of the femur and tibia and the joint space appears satisfactory on the non-weight bearing film. With weight bearing the tibia subluxes and the joint space is decreased.

TREATMENT

Both non-operative and operative therapy have a place in the management of the knee with degenerative arthritis. Non-operative therapy is applicable for knees with degenerative changes but without specific mechanical derangement, for pre- and post-operative rehabilitation, and when the patient's health prohibits surgery. The goals of treatment are to relieve pain, improve function and prevent deformity. Non-surgical treatment consists of rest, support, exercises and medication.

REST AND SUPPORT

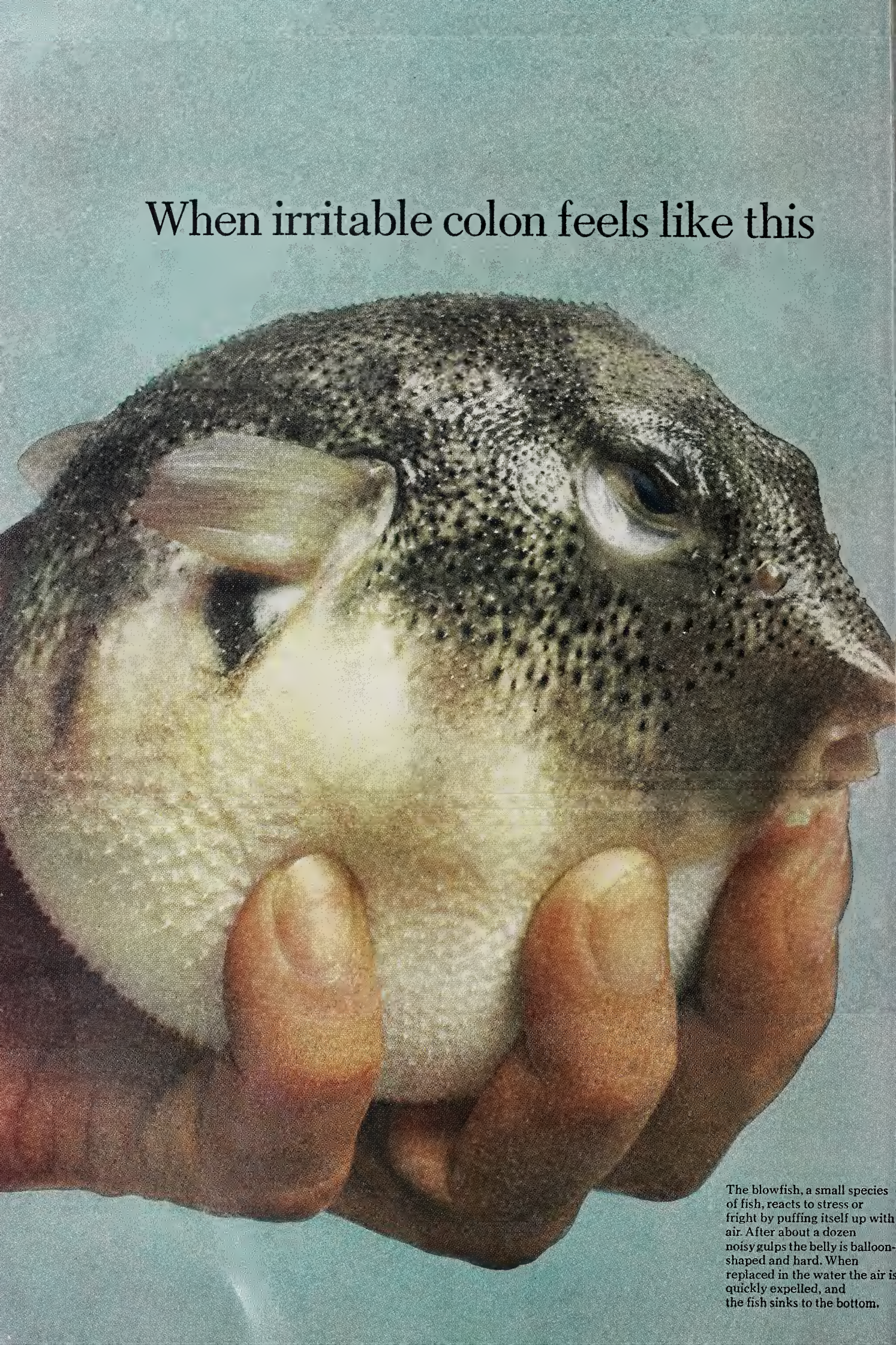
Some patients with degenerative disease of the knees consult a physician at the time of abrupt increase in pain, and others seek help at some point in the slowly progressive course of the disease. Following an episode with moderately severe pain, frequently with effusion, weight bearing activity for the involved knee should be curtailed. Initially, this is often best accomplished by bed rest and the use of a bedside commode. Seven days rest is usually adequate for relief of pain and effusion, and less time may be required. During these first few days, relief of pain is the primary objective, because pain prevents subsequent effective quadriceps exercises. The leg should be supported in a comfortable position.

If pain is less severe, the patient may be treated at home. Crutches with limited, painless weight bearing on the involved side are prescribed instead of bed rest. The patient should be instructed to walk only to the bathroom and the dining room until the pain and effusion improve. A cane is inadequate because it does not provide sufficient protection for the painful knee. Adequate analgesic medication and quadriceps exercises are prescribed, as for the patient at bed rest.

The patient with chronic knee pain and degenerative joint disease requires evaluation. Those with only mild pain and normal knees on physical examination require occasional aspirin, quadriceps exercises and reassurance. When truly troublesome knee pain has been present for several months, the patient will regularly have at least mild quadriceps muscle atrophy. Often a mild knee flexion deformity is present. Instability, valgus or varus deformity, or other abnormalities may be found. The presence of muscle atrophy indicates the need for quadriceps muscle exercises. Knee flexion contracture also requires quadriceps muscle exercises. Frequently there will be a quick-step type of limp, with the patient taking a short step on the involved side to lessen the pain or sensation of instability. A quick-step limp indicates the need for added support. If the limp is mild and a cane eliminates the limp, this is adequate. If the limp is not eliminated by use of a cane, crutches are needed.

If a cane or crutches are to be of greatest benefit they must fit and be used correctly. A cane is always carried in the hand on the side *opposite* the leg to be protected. This permits the patient to walk with normal alternate arm motion. The cane is of proper length when the

When irritable colon feels like this



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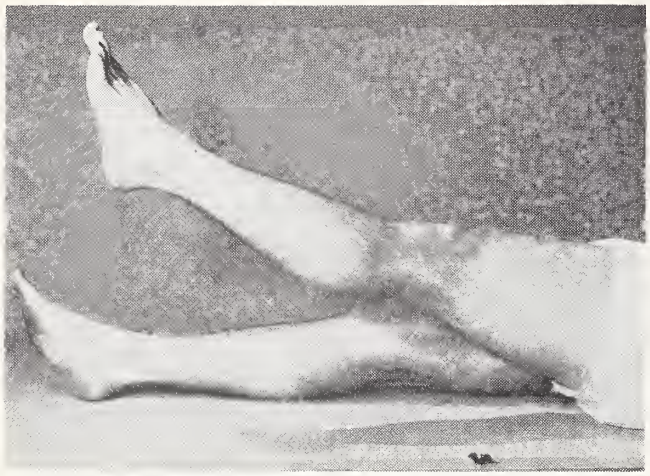

Figure 3. Isometric quadriceps exercises. The patient lays on his back, contracts the quadriceps, lifts the leg six inches, holds it elevated for five seconds, and returns to the starting position. When weights are used they are placed across the anterior ankle.

patient, standing erectly with the cane gripped normally and touching the floor beside him, has the elbow flexed 25 to 30 degrees. It is better for the cane to be a bit short rather than too long. If the cane is of proper length the patient does not have to lean forward to reach the floor with the cane while walking. The patient should be instructed in the correct use of the cane.

Crutches are not difficult to fit. The top of the crutches should be two to three finger breaths below the axilla. The curved top piece of the crutch is designed to conform to the side of the thorax, not the axilla. All of the weight is borne by the hands and none in the axillae. Long crutches and improper use increase the risk of pressure injury to nerves in the axillae. The proper height for the crutch handles is the same as for a cane. Ideally, crutch handles should angle forward and downward 15 degrees.

Patients require instruction in the proper use of crutches. When only one knee requires protection the patient uses a three-point gait. In a three-point gait the crutches and the protected leg are moved forward together. The patient should use strides of equal length. The protected foot touches the floor in a normal manner with sufficient body weight transmitted to the crutches to relieve the knee discomfort. When both knees require protection, the patient uses a four-point gait. In four-point crutch walking each crutch moves forward with the opposite foot and accepts partial weight just before the foot contacts the floor. Patients must be taught how to use their crutches going up and down stairs. When climbing stairs, the patient precedes the crutches. The patient places the crutches just to the edge side of the center of the step and supports himself with the crutches while he lifts his sound leg to the step above. When descending stairs, the crutches precede the patient. The patient places the crutches just anterior to the center of the step below and then lowers himself to the step. The protected leg moves with the crutches at all times. Climbing and descending stairs requires strong arms and balance. All patients should have assistance while learning to use crutches on stairs.

EXERCISES

Quadriceps strengthening exercises are the most important part of the treatment program for most patients with degenerative knee disease. The exercises improve two common and important abnormalities, quadriceps muscle weakness and knee flexion contracture. We start patients who have quadriceps muscle weakness and pain with knee motion on isometric exercises (Figure 3). Preferably the patient exercises while lying supine on a carpeted floor or a table, but if necessary may exercise in bed or on a sofa. If there is a flexion deformity and quadriceps contraction causes pain, a thigh support high enough to eliminate the discomfort should be used and then be lowered as improvement occurs. By decreasing the discomfort, the thigh support decreases the reflex inhibition of muscle contraction. Isometric quadriceps exercises should be performed both with and without straight leg raising. Without straight leg raising, the muscle is contracted maximally for five seconds followed by a few seconds rest period. This cycle is repeated until definite, but not severe muscle fatigue occurs. The patient continues this number of repetitions twice daily until muscle fatigue decreases. The number of repetitions are then increased as tolerated until 50 repetitions are performed twice daily.

Isometric quadriceps exercises with straight leg raising are begun when the pain has diminished sufficiently to permit the exercise. With straight leg raising the leg is raised high enough to bring the heel six inches off the bed. This position is held for five seconds with the quadriceps maximally contracted. The exercise is repeated as described here, again using de-

creasing muscle fatigue as a guide to the number of repetitions performed. Once the patient can perform 20 repetitions twice daily with maximum knee extension and only mild muscle fatigue, a one pound weight is placed on the ankle. The ankle weight is increased by one pound each time the patient is able to perform 20 repetitions twice daily with the knee in maximum extension and only mild muscle fatigue.

Isotonic exercises may be attempted in substitution for the straight leg raising when the patient is able to raise six to eight pounds. Isotonic quadriceps exercises are performed with the patient sitting on the edge of a strong table or chair (Figure 4). The distal thigh is supported to hold the thigh horizontal. The patient extends the knee completely, holds it for five seconds, relaxes the quadriceps and rests a few seconds. This exercise is repeated, beginning without weights, and progressing as described here, using maximum extension with diminishing muscle fatigue as the guide for increasing the number of repetitions. When 20 repetitions can be performed, ankle weights are added using one pound increments. Isotonic quadriceps exercises require knee motion and may cause pain during or after the exercise period. When the pain is severe, or if it persists more than a half-hour after the exercise, the patient should discontinue isotonic exercise and return to the isometric straight leg raising exercises. Quadriceps exercises should be done daily during the first two months. Later to relieve monotony, five or six days a week is strongly advised. The free days often result in continuation of the exercises when the patient would otherwise abandon the program. To avoid regression the patient with a flexion contracture of the knee or quadriceps muscle atrophy should continue the exercises indefinitely.

The patient stretches the posterior knee capsule by lying across a bed on his abdomen, with the edge of the bed striking just above the knees, with the knees and distal portions of the legs unsupported. This should be done for one hour daily in 10 to 30 minute sessions. The duration of each session is determined by appearance of more than slight discomfort. Continuing after discomfort increases is a waste of time because the knee flexors reflexly contract removing the tension from the joint capsule. When this technique rapidly causes pain, it should be postponed for a time. Careful measurement of the flexion contracture before treatment is necessary to determine the improvement. As long as the contracture improves, capsular stretching is continued. No improvement in the contracture after a four week trial indicates the need for other treatment. Skin traction or corrective casts may be tried, but both carry potentially serious risks.

Figure 4. Isotonic quadriceps exercises. The patient sits on firm chair or table, supports the thigh with his hands, straightens the knee and holds it for five seconds, and then resumes the starting position. Weights are held across the front of the ankle.

DRUG THERAPY

Drug therapy has a definite role in management of degenerative knee disease though of less importance than exercises, correction of flexion contracture and the use of crutches or cane. Since inflammation is usually a minor feature in degenerative joint disease, anti-inflammatory drugs offer little benefit to the patient. Tissue trauma, abnormal stress or compression, or muscle spasm and fatigue usually produce the pain. Consequently, analgesics are of more benefit. Aspirin is the most useful drug, and often the only one required. For intermittent pain, 10 to 25 grains of aspirin should be prescribed as needed. Ten to 25 grains of aspirin after meals and at bedtime, four times daily, is prescribed for more persistent or frequent pain. Buffered aspirin should be used if abdominal distress occurs. The maximum total dose of aspirin can be reliably determined by reducing the dose slightly when tinnitus or decrease in hearing acuity occurs.

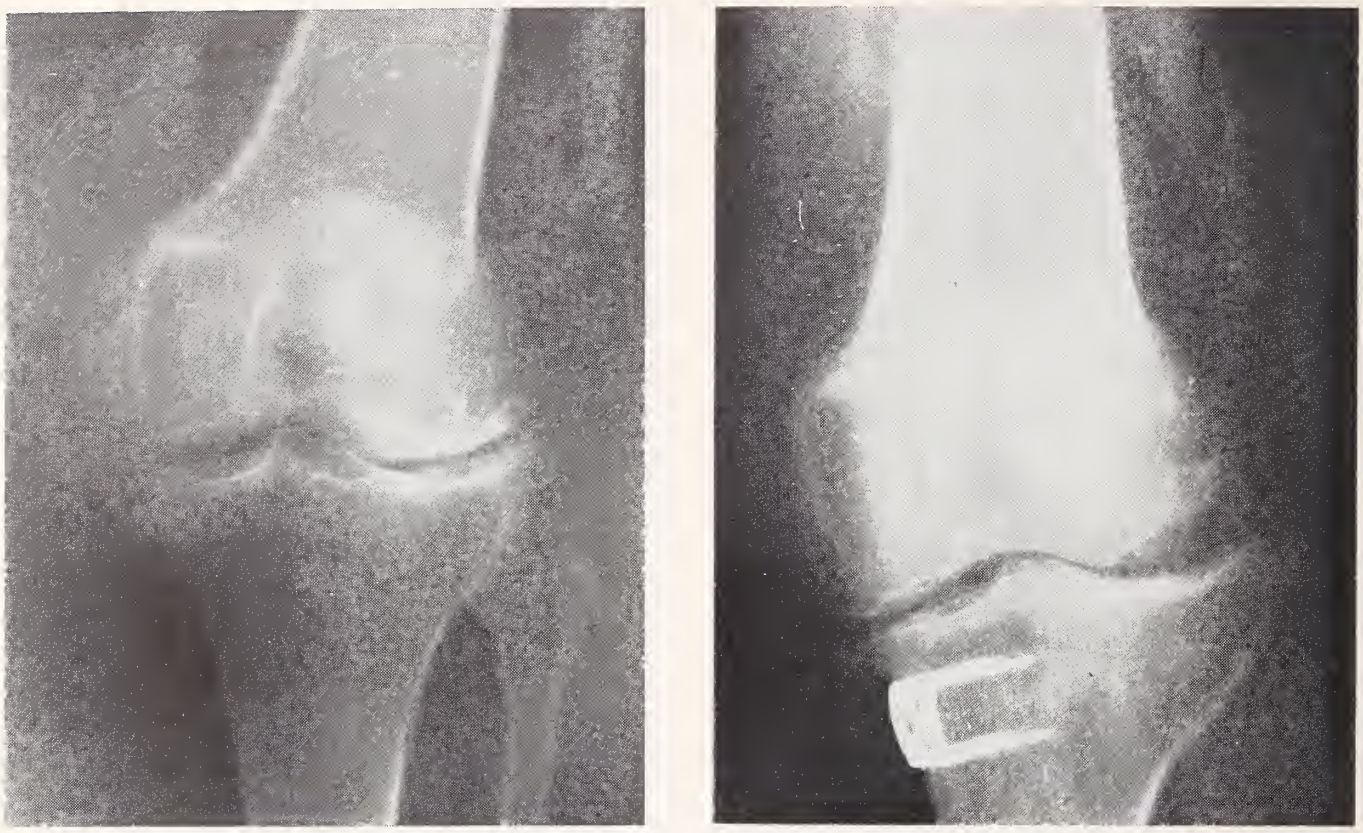

Figure 5. Proximal tibial osteotomy for degenerative genu valgus. Note the increased femoral-tibial angle in the pre-operative roentgenogram. After the osteotomy there is slight reversal of the angle with greater weight distribution on the medial half of the joint.

Figure 6. Prosthetic replacement of the tibial plateau. The pre-operative roentgenogram shows a valgus deformity with marked loss of bone from the lateral tibial plateau in a patient with rheumatoid arthritis. The post-operative film shows the replacement of the lateral plateau by a prosthesis with correction of the femoral-tibial angle.

Acetaminophen preparations, e.g. Tylenol®, two to three tablets four times daily, may be useful for the few patients who do not tolerate aspirin. Plain Darvon®, 32 or 65 mg., often provides relief for the occasionally more troublesome pain. When these drugs are inadequate for pain relief, correction of the abnormality causing the more severe pain is indicated rather than more potent analgesics for long-term treatment.

Intra-articular corticosteroid treatment frequently gives temporary relief of pain with an average duration of beneficial effect of 14 to 16 days. It does not correct any of the important abnormalities, and when the brief period of benefit has passed, the same problems again confront the patient and physician. Too often this form of treatment only postpones proper treatment. In patients with moderately severe knee pain and a rather tense effusion requiring bed rest, aspiration of the fluid with injection of corticosteroid may allow better motion of the knee, reduction of pain and temporary retardation of recurrence of effusion. It cannot be overemphasized that the use of intra-articular steroid, especially when done repeatedly, without attention to the important mechanical problems is improper treatment.

Systemic corticosteroid therapy has no place in the treatment of degenerative joint disease.

After the appropriate treatment has been chosen, the patient requires an explanation of his problem and instruction on how to restrict his activity. When possible the patient should sit rather than stand. Stair climbing should be limited. Walking is limited to the amount tolerated without producing effusion or more pain than aspirin will control. Frequent brief periods of rest during the day are beneficial. The patient should be told that while some activity and exercise are helpful, excessive use is to be avoided because the pain cannot be "worked out." The patient must balance his activity level just short of effusion and increased pain.

SURGICAL TREATMENT

Appropriate surgical treatment often provides symptomatic and functional improvement. Excision of menisci with tears or cystic degeneration, and of loose bodies should be considered. When pain can be related to synovial irritation by osteophytes, a limited joint debridement including removal of the offending osteophytes, degenerated menisci and a limited synovectomy may be of considerable benefit. If the patella is also involved, it is trimmed. Patellectomy is seldom necessary, and should not be done in conjunction with synovectomy or other intra-articular procedures.

Figure 7. Prosthetic replacement of the femoral condyles. These roentgenograms illustrate the replacement of the femoral condyles with an M.G.H. prosthesis.

High tibial osteotomy is a very useful procedure for the knee with varus or valgus deformity caused by loss of joint space and bone attrition on one side of the joint (Figure 5). This procedure redistributes the compression load on the articular surfaces, so a greater load is borne by the more normal side.

Prosthetic replacement of either the tibial plateau (Figure 6) or the femoral condyles (Figure 7) with synovectomy may be considered in the patient with rheumatoid arthritis. These implants have not proven as satisfactory with the functional load usually demanded in the patient with degenerative arthritis.

Arthrodesis of the knee may occasionally be the best solution when other joints in both lower extremities are normal, there is severe instability of the knee and the patient requires maximum stability.

Properly chosen, these procedures can often improve function and decrease pain. They do not produce normal knees, nor can these knees withstand strenuous demands. In addition, both the patient and the physician must realize that the convalescence is more protracted than in a normal knee, and some loss of knee motion is usual.

SUMMARY

Degenerative arthritis of the knee is a common problem. Supportive care with protection and quadriceps exercises, coupled when indicated with appropriate specific operative procedures to correct mechanical derangement, often result in symptomatic relief and functional improvement.

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The Tumor Clinic and the Tumor Clinic Registry

D. O. HOLMAN, M.D.
Ottumwa

A CONSIDERATION OF TUMOR CLINICS and tumor registry systems must begin with an explanation of how they fit into clinical medicine; they are almost two different subjects to physicians with the second dependent on the first.

For years there have been tumor clinics in many cities in the United States, and developing from these through the American Cancer Society as a secondary feature, have been the central tumor registries. We need here to organize our thoughts about the tumor clinic and identify its role in our work, we must recognize that good local organization and classification will benefit the state and nation.

Is there a valid reason for the existence of the clinics and registries? The answer is *yes* and for many reasons. The tumor clinic exists on a basis similar to a large general medical clinic where many physicians and other resources are available. Inasmuch as not all physicians work in a large clinic there is a need for broader informational resources. And because diagnosis is the most taxing problem for physicians, there is always good reason for the pooling of several medical minds. Often several doctors will contribute to the diagnosis of a patient and will collectively provide a sense of direction in determining the diagnosis, and as a special benefit, will offer a good perspective for treatment of the patient. Returning patients are often brought in for re-examination and consultation with further surgery seemingly indicated, but with the combined advice, a finding that the previous surgery is adequate is not unusual. This is often the case with such problems as lip cancer surgery, since it is never easy to know if this particular neoplasm should be accompanied by neck dissection.

The tumor clinic exists for basic reasons which parallel those of the American Medical Association, i.e., to provide for the general improvement of all through a better utilization of available material. The skill of a physician depends upon the case material he has seen, and this involves testing himself and his skills against controlled follow-up.

Through involvement in a good tumor clinic, by rubbing diagnostic elbows with others, the physician is stimulated; the clinic encourages medical reading and attendance at medical meetings, and it prevents the isolation of some doctors.

The regular participation by physicians in a tumor clinic improves their practice capability. A tumor clinic tends to enhance the congenial-

Dr. Holman is in the private practice of pathology in Ottumwa.

ity among physicians; obviously it isn't easy to have a tumor clinic without first having congeniality, however, congeniality is the cornerstone which sustains a tumor clinic.

I use the word congenial often in discussing the tumor clinic because, while a tumor clinic can be started any time, it will succeed only if the doctors in the area believe in it and want to support it and benefit from it. They are not successful everywhere. And while the Joint Commission may recommend a tumor clinic, it cannot successfully force one on a medical society. Therefore, mutual desire among physicians is essential for a tumor clinic.

ORGANIZATION

The initial organization of a tumor clinic is critical to its survival; it must be done carefully.

We have found a Saturday morning tumor clinic meeting (at 8:00 a.m.) to work out well. There is less surgery on Saturday and medical activities are somewhat reduced over the other days in the week. We precede the meeting with a hospital catered breakfast and we insist that it be as superb as possible; this provides an inducement for coming to the meeting. A tumor clinic depends upon a congenial relationship between the physicians and the hospital, and to have this the initial planning and the ultimate organization must transcend the special concerns of small groups or factions; an open study is needed to know in which hospital(s) a community should place its tumor clinic. The Ottumwa Tumor Clinic was located in one hospital because of its overall convenience. The idea of rotating the clinic between hospitals, perhaps on an annual basis, was considered but ruled inadvisable. A hospital can furnish the basic requirement of clinic space. There is a need for a tumor clinic conference room and adjacent small satellite examining rooms; the clinic can be one large room with booths available for the examination of patients; then too a tumor clinic office is needed. A few basic examining instruments are needed for the tumor clinic conference room, as well as a carbon arc micro projector and screen and a set of X-ray view boxes. These latter items allow the pathologist to project slides and the radiologist to present his films. For the office, a typewriter, desk and files, including index files, are needed.

The chairmanship of the tumor clinic is rotated annually. The tumor clinic secretary is responsible for advising when a change in chairmanship is due and for knowing whose turn it is. The tumor clinic has a board of physicians which is maintained on a rotation basis so those with an interest in clinic activities may serve in this way. These board members seek to stimulate and maintain medical society and hospital interest and support. It is extremely important for a pathologist and a radiologist to maintain an active interest in the tumor clinic program, inasmuch as they offer the additional and most important addendum to the structure of the tumor clinic by presenting the most pertinent and current X-rays and laboratory tissue sections from the passing spectrum in the community.

It is important for the pathologist's case reports on all neoplasms to be stamped for the tumor clinic, with a copy to be forwarded to the tumor clinic secretary. In this way there is a written record of all of the neoplasms seen in the area. Some of the slides are selected for viewing on Saturday morning by the entire group. Surgeons, but for the lack of time, would like to see all of their surgical specimen tissue sections, and the Saturday meeting provides an excellent opportunity to present at least a good selection, along with the radiologist's pertinent X-ray studies. Again, it keeps the doctors current on most of what is being seen in their locale; the presentation of the material generally prompts discussion of the cases, the diagnoses, and the methods of treatment. In this way, even the unvisited patients are benefited. I believe this is a good substitute for the pathology conference which is being dropped from the medical scene in many areas, and this is more in line with the newer attitude which substitutes living cases for autopsy reports.

THE WEEKLY MEETING

Patients are asked to report about 7:45 a.m., which gives the secretary-nurse an opportunity to set up a chart. There are four or five small booths to which physicians are assigned by the chairman. The physicians are assigned various cases and have an opportunity to do a preliminary workup including history and examination. They are then called on to present a report and demonstration of the cases before the entire group. The man who makes the preliminary examination gives his report of the his-

tory and findings, and the patient is brought in for all to see, and then the examiner leads a discussion of his findings and his diagnosis. The other doctors present are urged to offer their opinions. After each of the cases has been reported and discussed this way, the chairman and the secretary of the tumor clinic prepare a letter for the referring physician which serves as a written summary; it can become a useful part of the patient's tumor clinic file.

When all of the morning tumor clinic cases have been seen, the pathologist and radiologist present the important slides of the tissues of the week, and if the clinician happens to be present, a history and discussion of the case is provided. The pathologist saves slides throughout the week for the Saturday conference and organizes them for presentation; the list of slides he has developed is given to the X-ray department for development of additional materials.

All case records are kept by the secretary-nurse in the tumor clinic office, and using proper stationery and files she organizes the record for local tumor clinic use, and she develops the copy for the central tumor registry. She establishes files so that patient follow-up can be handled.

COST OF OPERATION

Although the tumor clinic conference room and tumor clinic office are expected to be furnished by the hospital, and although it costs little to see the patients on Saturday morning, there are nonetheless basic costs. The Ottumwa Tumor Clinic has a basic cost of about $4,000 a year, with the bulk of expense in the tumor registry section. It is our experience in this 23-year-old clinic that as time has passed there has been more and more case follow-up which has increased the cost.

The secretary-nurse in this instance is an individual shared by a physician, the Medical Society, and the Tumor Clinic, with the Tumor Clinic's share of her wages $250 per month.

CENTRAL TUMOR REGISTRY

To develop understanding of the two-part arrangement represented by the regional tumor clinic and the central registry is a major state problem, and it should be a principal objective of the American Cancer Society. The local tumor clinic, which patients utilize as a diagnostic resource for themselves and their physicians, is an important structure needed in all areas. Physicians should be ever mindful that the registry is a secondary instrument which serves as a record-keeping and statistical entity. In our ever-expanding bureaucratic way of life the main office often becomes too important and sight of the fundamental goal is lost. It is the local tumor clinic which has the important basic service. It seems to us that a central tumor registry operates best when affiliated with a medical school; and if properly organized, it will exert a positive influence on the organization and operation of the regional or local tumor clinics and make certain the results of everyone's efforts are well recorded. Cooperation between a local clinic and the central registry does not come generally by assigning a supervisor to the regional or local tumor clinic; it rather derives from having a liaison officer named at each tumor clinic (whom we suspect should be the annual tumor clinic chairman) and this individual, with the secretary, should keep the tumor clinic in touch with the registry. The forms used in the case studies and by the central registry should be the same, not only for the state, but very likely for the entire nation, so that uniform information can be obtained and utilized. There appear to be two ways of maintaining good contact between the local tumor clinic and the central registry: (1) By having an officer from the central registry visit each tumor clinic once or twice a year; and (2) By having an annual meeting of tumor clinic secretaries at the registry. If it is difficult for a physician from the central registry to visit each tumor clinic about the state, then the annual meeting of secretaries could be an adequate substitute.

Since the central tumor registry is computerized, we would like to have computer readouts distributed once or twice a year, with a summary provided when possible by the central tumor registry physician. We want to be sure that the material which is sent in to the central tumor registry is analyzed completely and separated into all of the different modalities so that the various factors, e.g., occupation, method of treatment and environment, etc., are apparent in the report. There is, for example, some suggestion that there is an increase in lymphomas among meat handlers and those in animal husbandry; and then there are many who are asking about the effect of contaminated river water upon our drinking water. We in

Ottumwa have the impression that we see an inordinate amount of adenocarcinoma of the colon compared with other states. We would like to see if that is true.

We have to have regional and national information or the central tumor registry is of no value, and an unneeded expense. So far there has been no report of this nature from the Iowa Central Registry.

SUMMARY

A tumor clinic is an important and interesting adjunct to any medical society, and its degree of use tells much about the medical community, for it depends on congeniality. Used properly, the tumor clinic compares with a medical clinic where many are available to consult on diagnosis and treatment. It also provides a week-by-week review of the medical activities of the area, including pathology and radiology. It is a good substitute for the clinical pathological conference. The great cost of a tumor clinic is in the maintenance of registry information. It is important to remember there are two phases to a tumor clinic. It is basic and important in and of itself, and secondly it can record the area pathology for the registry. A state registry is dependent upon the tumor clinic and not the other way around. The tumor clinic feeds material to the registry, and the registry regularly feeds back the state and national work-up analysis. The summary and analysis is yet to develop sufficiently in Iowa.

Calculous Cholecystitis in a Young Age Group

EDWARD J. DELASHMUTT, M.D., F.A.C.S.
Fort Madison

FAIR, FAT, FORTY, flatulent and female is the time-honored mnemonic phrase used in our medical classrooms and on hospital teaching rounds to describe the typical patient with gallbladder disease. However, a review of our simple cholecystectomies for a six month period (January 21 to July 24, 1970) showed 7 per cent of the patients to be pretty, plump, pink and slightly past puberty. A subsequent review of the medical literature uncovered a number of cases of cholecystitis in the younger age group and a large number of statistical reports which included autopsy findings as well as unsubstantiated clinical diagnoses. We were unable to find many reports which included cholangiography, either operative or I/V, as a routine part of the work-up or surgical procedure. The four cases summarized in the accompanying Table 1 are taken from our recent review.

Dr. DeLashmutt is a surgeon associated with the Valley Clinic in Fort Madison.

CLINICAL MATERIAL

All four cases were operated at Sacred Heart Hospital, a 120-bed facility in Fort Madison. Three of the four cases had operative cholangiography; one had a pre-surgical I/V cholangiogram which revealed a normal common duct and ruled out cholangiography at surgery inasmuch as two stones were identified, both of which were much larger than the cystic duct. The operative cholangiography consisted of two exposures; one with a small amount of dye injected for the first film and a larger amount of dye for the second. This was done in order to delineate all of the biliary radicals and to reveal any delayed spill into the duodenum.

All patients were female and their histories were contributory. The 18 and 19 year olds had had single pregnancies and had delivered viable fetuses. All patients were slightly overweight and demonstrated definite intolerances

to fatty foods. The family history was non-contributory in three of the four cases; however, the fourth patient (V.B.) presented a history of diabetes in the family; even so, the child produced a normal glucose tolerance test. A correct clinical diagnosis was made in each instance and confirmed by surgery.

All patients were operated within four months of the onset of symptoms and only one (J.W.) was mis-diagnosed at any time. A diagnosis of hepatitis was considered on this child at the time of her first hospital admission due to an elevated BSP (26) and slightly elevated bilirubin (2.66 mgm. per cent), one plus cephalin flocculation and a slightly inverted A/G ratio (1.4 to 1). The alkaline phosphatase in this case was elevated to 5.3 and the serum transaminase was 104. These tests were repeated on admission to the hospital for surgery two weeks later and all were then within normal limits. This diagnosis is consistent with the findings of Ulin, *et al.*,[1] in their study of this disease. Common symptoms were abdominal pain, chiefly in the right upper quadrant, bloating, nausea and some intolerance to fatty foods, although this varied in each of the four. None had had any previous abdominal surgery. Oral cholecystograms revealed positive stones in one patient (V.B.) and non-visualization of the gallbladder on two occasions in the remaining three. No congenital abnormalities or marked anatomical aberrancies were found in any of the four cases. There was no history of anemia and all red cell counts, hemoglobins, and hematocrits were normal. The white blood cell count was elevated in one case (P.H.).

SURGICAL TREATMENT

All patients were operated through a modified Kocher incision with division of the right rectus muscle. Abdominal exploration was undertaken to rule out any other pathology. The pancreas and liver in all cases were carefully examined to make sure that no associated disease or congenital abnormality were present. Appendectomy was performed in one case. Cholecystectomy with delineation of the common-cystic duct junction was carried out in all cases. Operative cholangiography was performed in three of the four cases (see photographs). These were normal in all cases. A fourth case (P.H.) had had an I/V cholangiogram as part of her preoperative work-up and this revealed a normal common bile duct with free spill of contrast material into the duodenum. Because only two large stones were found in the inflamed gallbladder, cholangiography was not considered feasible based on the findings of the I/V cholangiogram. There were no postoperative complications. The patients were discharged from the hospital; one on the fifth day, one on the sixth day, and the remaining two on the seventh day; the stitches were removed prior to discharge. Antibiotics were used in the one case of exacerbation of chronic cholecystitis. These patients have been followed in the office without evidence of late wound complication or recurrence of symptoms.

SUMMARY

Four patients, all under age 20, were operated upon in a six-month period. Operative

TABLE I

Patient	Age	Findings at Surgery	Cholangiogram	Pathology Report
P.S. 1/21/70 (Figure 1)	19	Thickened gallbladder with multiple calculi. Small cystic duct. One stone impacted in cystic duct.	Normal operative cholangiogram.	Chronic cholecystitis with cholelithiasis.
J.W. 7/9/70 (Figure 2)	14	Thickened gallbladder with recent inflammatory changes. Adhesions over triangle of Calot. Several hundred small stones in gallbladder.	Normal operative cholangiogram.	Chronic cholecystitis with cholelithiasis.
V.B. 7/24/70 (Figure 3)	13	Thick contracted gallbladder with multiple small stones. Common duct slightly dilated.	Normal except for slight dilatation of common duct.	Chronic cholecystitis with cholelithiasis; Cholesterolosis.
P.H. 7/24/70 (Figure 4)	18	Distended edematous gallbladder containing purulent material. Two large stones. One impacted in the ampulla.	Normal I/V cholangiogram prior to surgery.	Chronic cholecystitis with exacerbation; Cholelithiasis

Figure 1

Figure 2

Figure 3

Figure 4

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cholangiography was carried out in three; I/V cholangiography was done prior to surgery in one. Although multiple gall stones were found in all three patients who had operative cholangiography, no common duct pathology was demonstrable, either at the time of surgery or by operative cholangiography. This appears to substantiate findings in the literature that choledocholithiasis is a rare phenomenon in the younger age group.[2] However, it is also apparent that cholecystitis and cholelithiasis must be considered as a possible diagnosis in any child who complains of an abdominal pain which cannot be readily explained by the clinical findings. It is our conclusion that oral cholecystograms should be included as a part of the routine work-up in the undiagnosed patient with abdominal complaints, regardless of age.

It is interesting to speculate on whether dietary changes and socio-economic conditions contribute to the development of stones in the younger age group as noted by Brownrigg.[3] We likewise believe it is noteworthy that the two older patients had both been pregnant and delivered a child and this also seems to confirm the time-honored conclusion that multiple pregnancies are probably a definite factor in the development of cholelithiasis.

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Editorials

ON THE DELIVERY OF MEDICAL CARE

That there is a shortage of physicians in this country and that this constitutes a serious problem in rural areas and in the densely populated areas in our cities is well recognized by organized medicine. The American Medical Association is deeply involved in the strenuous effort to alleviate the shortage and to correct the maldistribution. Existing medical schools are increasing the number of students, new schools are in the process of organization, and serious consideration is being given to reducing the required years of paramedical and medical education.

Unfortunately, the news media has been unduly critical of the medical profession in this country in recent years. In a highly critical television program CBS told viewers, "Don't Get Sick in America." The profession is criticized for situations that are basically demographic, sociologic and economic, this is the case despite conscientious efforts to resolve the medical care problems which these forces have brought about.

In attacking American medicine critics frequently compare the quality of medical care in this country to that of Sweden—based on neonatal mortality and longevity. To compare the logistics of medical care in the two nations is unreasonable. Sweden has a total area of 173,666 square miles in contrast to over three-and-a-half million square miles in this country. The population in Sweden is 7,700,000 compared with a population of 205 million in the U.S.A. Sweden has a homogenous population in contrast to the many heterogenous ethnic groups which make up our population. Sweden has only one city approaching a million in population, quite different from the concentration of citizens in our many metropolitan areas.

For people who are unhappy about medical care, displeased that they are unable to get an immediate appointment for a check-up, or concerned that they must drive across town or to the county seat to see a physician, a look at the medical picture in India might prompt a feeling of gratitude for the quality and quantity of medical care here at home. India has an area of 1,247,000 square miles and a population of over 500 million. In contrast to 53 persons per square mile in this country there are 390 per square mile in India. The number of physicians per million population in this country is somewhat over 600, in contrast to 170 per million in India, and it is reported that 40 per cent of the Indian physicians are located in the largest towns and cities. Eighty per cent of the population of India lives in its 500,000 to 600,000 scattered villages. Poverty is widespread, 10 million are unemployed and 16 million are only partially employed. The existing health plan has allocated 10 shillings annually for the health care of every man, woman and child, in dramatic contrast to 35 pounds annually in Great Britain.

It is difficult to persuade young physicians to locate in poverty areas of large cities or in sparsely populated rural areas. It is probably even more difficult to convince wives of young physicians that they should live and raise families in these settings. Until such time that there are sufficient physicians to cover all geographic areas it seems that the operation of satellite centers operated by paramedical personnel is worthy of consideration. Medical corpsmen returning from Vietnam and nurses could provide a source of trained manpower to operate units of this kind.

Medical care in this country is not perfect

Editorials continued...

and too many people are not receiving attention for one reason or another, but conscientious efforts are being made to correct the situation.

A paragraph from an article in the October issue of MASSACHUSETTS PHYSICIAN relates to this problem and deserves the attention of citizens everywhere:

"We agree that a uniformly good quality medical system does not exist in the United States. We also agree that the medical profession bears a responsibility to plan and work for such a system. Undoubtedly the means for this must be considered. Let no one be deluded into thinking, however, that the total bill for health care under national health insurance will be less than it is now. Let no one be gullible enough to think such a system will solve those problems which relate to manpower supply, quality of care and distribution. Replacing our method of paying for services with another and legislating 'universal eligibility and spectrum benefits' cannot and will not secure 'quality care for all Americans.' This will not be accomplished until such contributing problems as poverty, hunger, hovels, ignorance, inertia, fear, prejudice, distrust, superstition, language barriers, illiteracy and quackery are solved. Their solutions should take precedence over any new scheme to tax and spend."

ISCHEMIC HEART DISEASE

An intriguing and provocative hypothesis to explain the high incidence of ischemic heart disease in males has recently been proposed by T. W. Anderson, M.D.,* of the University of Toronto. The hypothesis is predicated on a comparative study of male and female mortality trends in the Province of Ontario during the past few decades. The data supports the concept that the high death rate from ischemic heart disease in males constitutes a modern epidemic.

The study revealed that since about 1925 the death rate from all causes in females between the ages of 45 and 64 had declined to half its previous level, in contrast to the male death rate which has remained stationary, due largely to an almost threefold increase in deaths ascribed to heart disease in men. During this same period, the death rates from cerebrovascular disease in males and females have remained approximately equal and stationary. These findings led the Ontario physician to ascribe the rise in the male death rate from ischemic heart disease to an increased tendency or susceptibility of the myocardium to infarction, rather than to an increased incidence of atherosclerosis *per se,* or to an increased tendency to intravascular thrombosis.

Dr. Peterson points out that previous studies in Ontario showed that although the death rate for middle-aged men from coronary thrombosis appeared to have at least doubled between 1930 and 1950, the death rate from cerebral thrombosis during the same period of time did not change significantly. Death rates were taken from samples of death certificates evaluated at 10-year intervals between 1901 and 1961. This method was used in lieu of a study of published mortality statistics inasmuch as these have undergone significant changes in terminology as well as re-classification since the beginning of the century. Available data indicated that until about 1930 there was little difference in mortality from all causes in middle-aged males compared to females. Since that time there has been a steady improvement of the mortality rate in females, an improvement not shared by males.

In the present study the routinely published mortality statistic of Ontario, despite certain limitations, confirmed the earlier findings and led the author to attribute most of the rise in the male death rate from ischemic heart disease in the age group 45-64 to factors which

* Anderson, T. W.: Hypothesis: role of myocardium in modern epidemic of ischemic heart disease. LANCET, 2:753-755, 1970.

influence the vulnerability of the myocardium to infarction.

According to the author, the large increase in ischemic heart disease mortality in Ontario since about 1920 and an absence of any corresponding increase in the male death rate from ischemic cerebral disease constitutes something of a paradox. According to most generally accepted concepts of the pathogenesis of these two diseases, the basic cause of death in both of them is thrombosis within an atheromatous artery.

One possible explanation for the paradox is that since about 1920 there has been a localized increase in coronary atherosclerosis unaccompanied by a corresponding increase in the degree of atherosclerosis of arteries within and leading to the brain. This explanation is considered untenable inasmuch as atherosclerosis is a systemic, metabolic disease in which etiologic factors, such as diet, result in a general rather than a local effect.

Another possible explanation is that there has been an increased tendency to intravascular thrombosis during the past few decades. This thesis also postulates a local effect upon the coronary arteries. The author points out that this is unlikely for various reported studies have cast doubt on the conventional belief that myocardial infarction is typically the result of an acute coronary occlusion; that in a large proportion of fatal cases of myocardial infarction, thrombosis within the artery is a sequela to rather than the cause of myocardial injury. It is also pointed out that patients with a severe predisposition to intravascular clotting show no predisposition to myocardial infarction. Disappointing results from long-term anticoagulant therapy also supports the concept that the incidence of myocardial infarction is not significantly influenced by changes in the coagulability of the blood.

The most likely resolution of the paradox, according to the Toronto physician, is that one or more factors in our modern way of life have increased the vulnerability of myocardial cells to the metabolic disturbances associated with stenotic arteries. Cigarette smoking might influence the viability of the myocardial cell either by direct action on the cell membrane or perhaps through neural or hormonal influences. Physical inactivity conceivably could predispose to myocardial cell death by some neurohormonal mechanism or as a result of reduction in anastomotic circulation of the myocardium. The stresses of modern life could conceivably act in a similar manner.

It is within the realm of possibility that the failure of the cerebrovascular death rate to increase has been due to the widespread use of antihypertensive drugs since about 1950. To substantiate this thesis it would be necessary for a substantial proportion of all hypertensive persons to be taking regular, effective doses of antihypertensive medication, and this certainly was not true, according to Dr. Peterson.

The author concludes with the statement that "it seems reasonable to believe that although the timing and magnitude of certain trends may be different in other parts of Europe and North America, this Province may provide a useful index of the mortality patterns characteristic of 20th century western civilization."

It is by questioning the validity of generally accepted concepts in medicine that genuine progress is made. The hypothesis proposed by Dr. Peterson will be seriously questioned but if it stimulates greater effort to understand the pathogenesis of myocardial infarction, the hypothesis is a significant contribution.

Another hypothesis* which incriminates insulin and carbohydrate in atherogenesis is receiving increasing consideration. Repeated studies have shown that despite the improvement of hyperglycemia and ketosis which has resulted from insulin therapy in diabetes, the incidence of arteriopathy has steadily increased. Also a large proportion of non-diabetic patients with coronary disease have abnormalities of carbohydrate and lipid metabolism quite similar to those found in diabetic subjects.

The relationship of a high carbohydrate diet, particularly refined carbohydrate, and insulin in the pathogenesis of atherosclerosis is thought to be due to the deposition of large amounts of glucose in the liver where it is synthesized into triglycerides and cholesterol. These lipids find

* Stout, R. W., and Vallance-Owen, J.: Insulin and atheroma. LANCET, 1:1078-1080, 1969.

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their way into the circulation and are deposited in the arterial wall. It is also thought that lipid synthesis takes place within the arterial wall itself. Over a period of several decades the ingestion of a high refined carbohydrate diet and its metabolic effects induce atherogenesis.

The role of carbohydrate and insulin in atherogenesis is an intriguing hypothesis; however, it offers no explanation for the difference in the incidence of myocardial infarction and cerebral thrombosis.

Of interest is a recent press report of a California anthropologist, R. D. McCracken, who asserts that man took his first fateful step toward becoming the victim of many degenerative diseases 10,000 years ago when he discovered how to cultivate grains. He subscribes to the hypothesis that a diet high in carbohydrate, particularly refined sugars, is responsible for many of the diseases which afflict modern man. He insists that sugars are far worse than saturated fats, and that man is basically a meat and fruit eating animal, and that sugars and starches are an unnatural diet for him. He points out that 200 years ago the per capita consumption of sugar in England was about seven and a half pounds per year. Today it is 120 pounds. In the United States the per capita consumption of sugars has doubled since 1870 and is now about 105 pounds per year. Significant is the fact that the first coronary attack in this country was not described until early in this century. It is postulated that the habitual consumption of foods that contain sugar in a readily absorbed form upsets the balance between too high and too low blood sugar levels. The ingestion of a readily absorbable sugar prompts the secretion of large amounts of insulin, resulting in metabolism disturbances which in time result in the degenerative diseases which afflict modern man.

A HAPPENING—A long-time wish of Iowa Medical Society President J. H. Sunderbruch, M.D., was fulfilled this past Christmas. The Davenport physician arranged and hosted a holiday vacation in Hawaii for 23 members of his family. The mothers of Dr. and Mrs. Sunderbruch were senior members of the delegation, and they, along with the other members of the family, had an unforgettable visit to Honolulu. The travelers are pictured here boarding for flight.

University Hospitals DRUG LETTER

Interactions of Drugs and Alcohol

ROBERT J. ROBERTS, PH.D., M.D.
Iowa City

Physicians prescribing drugs need to be aware of the problem of drug interactions not only because of the potential toxicity of certain combinations but also because therapeutic efficacy can be altered. Interactions of drugs with alcohol account for a significant percentage of drug-interactions not only because a large segment of the adult population consumes alcoholic beverages to some degree, but also because many nonprescription items such as liquid cough and cold preparations, tonics and anti-histaminic preparations contain appreciable amounts of alcohol.

TABLE 1

VARIOUS CLASSES OF DRUGS SUSCEPTIBLE TO INTERACTION WITH ALCOHOL[1, 2, 3]

Antibacterial agents	Hypoglycemic agents
Anticoagulants	Sedatives and hypnotics
Antihistamines	Stimulants
Antihypertensives	Tranquilizers

I. Interaction of Alcohol With Other Depressants

Alcohol has been found to interact with innumerable depressant drugs, some of which are listed in Table 2. Although alcohol itself may have a duration that is short, intermediate or long depending on the amount consumed, its depressant effect can produce a critical addition when ingested just prior to or with other depressants. Inadvertent suicides have occurred with combinations of barbiturates and alcohol where confusion and amnesia prior to sleep resulted in a reckless repetition of the dosage of drug. A patient who has been prescribed a barbiturate to induce sleep or daytime sedation should be warned against the concurrent use of alcohol to help avoid a dangerous situation for the individual and for society.

The combination of chloral hydrate and alcohol, better known as "knock-out drops" or a "Mickey Finn," is one of the most widely recognized examples of alcohol-drug interaction. The additive effect by alcohol of chloral hydrate-induced sedation or hypnosis has been related to a marked inhibition of the metabolism of alcohol and the prolonged half-life of the active metabolite of chloral hydrate, trichlorethanol.[4]

It is difficult to make any general conclusions about the additive or greater than additive effect of alcohol plus the nonbarbiturates and major tranquilizers. Animal and human experimentations have occasionally shown conflicting findings which may well be due to differences in dosage, route administration, species and/or criteria of measurement. There is a hyperadditive effect between alcohol and most major tranquilizers in animal studies. However, these drugs appear to be only additive with alcohol in man.[2] The majority of human studies with meprobamate (Equanil®) have indicated a hyperadditive effect whereas chlordiazepoxide (Librium®) interacts only additively with alcohol.[3]

TABLE 2

DEPRESSANTS WHICH INTERACT WITH ALCOHOL[2]

1. Barbiturates	— amobarbital, pentobarbital (Nembutal®), phenobarbital, secobarbital (Seconal®), thiopental
2. Nonbarbiturates	— chloral hydrate, paraldehyde, ethinamate (Valmid®), glutethemide (Doriden®), methyprylon (Noludar®), chlordiazepoxide (Librium®), meprobramate (Equanil®)
3. Tranquilizers	— chlorpromazine (Thorazine®), reserpine
4. Narcotics	— meperidine (Demerol®), morphine
5. Marihuana	

The combined effect of alcohol and narcotics is very unpredictable. In patients involved in accidents while under the influence of alcohol, the use of therapeutic doses of morphine or morphine-like drugs has been associated with fatal poisoning.[5] An interesting parallel is the reported use of alcohol combined with intravenous pitocin to induce labor.[6] The amount of meperidine (Demerol) necessary to produce sedation and amnesia in these women was about one-fourth to one-half of what is usually needed.

There are several reports of antagonistic effects between alcohol and several of the depressant drugs (e.g., pentobarbital, phenobarbital, meprobamate).[3] Antagonism between alcohol and certain CNS depressants is thought to be related to two mechanisms.[7] The first mechanism involves a stimulation of the drug or alcohol metabolizing enzymes in the hepatic microsomes, while the second involves a decrease in the tissue sensitivity to drugs or alcohol. The primary criteria for the occurrence of antagonism is a sufficient interval of time between drug and alcohol ingestion such that the acute CNS depression of each does not

Dr. Roberts is an instructor in the Department of Pharmacology at the University of Iowa College of Medicine.

overlap. The previous discussion regarding additive or hyperadditive effects of alcohol and depressants involved essentially concurrent ingestion.

II. Interaction of Alcohol With Stimulants

Caffeine has been considered to be an antidote for overdosage of alcohol for many years. In a study with human subjects no antagonism of alcohol by caffeine was found, rather, the recordable depressant effects of alcohol were increased.[2] On the other hand, the use of caffeine rectally has been recommended as an antidote for acute alcoholic intoxication.[1]

When alcohol and amphetamine are taken together each appears to modify the pharmacologic effects produced by the other.[2] In both human and animal experimental studies it has been found that symptoms of acute alcoholic intoxication are relieved significantly by amphetamine.[8] Specifically, amphetamine apparently neutralizes alcohol-induced incoordination and incoherence and/or reduces the severity of alcohol "hangover." Interestingly, d-amphetamine has been shown to quiet persons hyperactive and irritable under the influence of alcohol.[8] The amphetamines have not been successfully employed in treating the chronic alcoholic state.

An adverse result of the interaction of alcohol and MAO inhibitors has been noted in a number of patients. A number of hypertensive crises have been reported during tranylcypromine (Parnate®) therapy if fermented alcohol beverages (wines) are concurrently ingested.[9] These beverages can contain significant quantities of tyramine which causes release of norepinephrine present in supranormal amounts in nerve endings as a consequence of MAO inhibition. In addition, because of their general enzyme-inhibiting properties, MAO inhibitors may enhance the depressive properties of alcohol by interfering with enzymatic degradation pathways.[1] Because of these interactions the AMA Council on Drugs has recommended that patients undergoing therapy with MAO inhibitors be cautioned not to drink alcoholic beverages.[10]

III. Other Alcohol-Drug Combinations

There are several reports of interactions between alcohol and hypoglycemic drugs. One review of drug reactions after alcohol reports that 10 to 20 per cent of patients taking oral hypoglycemic drugs have side effects (flushing, breathlessness and headache) if they ingest alcohol.[11] They were reportedly more common after chlorpropamide (Diabinese®) than after tolbutamide (Orinase®). In another study prolonged, heavy alcohol ingestion in man more than doubled the rate of metabolism of tolbutamide presumably on the basis of alcohol-stimulated microsomal enzyme activity.[12] This mechanism was proposed as a partial explanation for the primary and secondary failures (27.8 per cent) in the treatment of diabetes mellitus with tolbutamide.

The excessive consumption of any alcoholic beverage makes the control of dosage of anticoagulants (coumarins) much more difficult. The metabolism of anticoagulants themselves may be increased similarly to the oral hypoglycemics which would antagonize their anticoagulant action. On the other hand, patients with significant liver disease have an increased sensitivity to the action of anticoagulants and the known deleterious effects of alcohol on the liver parenchyma should further emphasize the above precautionary remarks.

In isolated instances ethyl alcohol combined with another agent has pharmacologic merit, e.g., as a specific antidote in methanol and ethylene glycol poisoning.[1]

IV. Conclusion

The question as to whether combinations of alcohol and drugs will produce additive, hyperadditive or antagonistic responses has been the topic of considerable debate. Obviously, many factors can influence the nature and severity of any drug-alcohol interaction including the type and amount of alcohol and/or drug ingested by the patient and the time/or sequence of ingestion of the drug and alcohol. Regardless, the frequency and severity of these interactions as well as all other drug and/or chemical interactions are likely to increase rather than decrease because of the trend towards drug abuse, the increasing number and multiple use of potent medicinal agents, and the exposure of an increasing percentage of the total population to potentially toxic substances such as insecticides.

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American Association of Medical Assistants

State of Iowa, Inc.

In Tune With the Times . . .

To quote from the acceptance address of AAMA President Marie Young: "Now more than ever the members of AAMA need to be in tune with each other and with the times—we need to be playing the same song and be aware of the tempo of the times—so that our efforts may be harmonious. The whole structure of the health team is being challenged and questioned at every step. . . . Our reason for being (AAMA) is to help improve the quality of health care and to be of greater assistance to the public whom we serve. We shall endeavor to do this by continuing to produce programs geared to self-improvement and concern."

To achieve this goal, we must take advantage of AAMA programs. Let me urge you to consider seriously the matter of certification. Educational packets are available from our national office, at a nominal fee, to aid in setting up courses for study groups. You may prefer night classes where you can study a particular subject such as anatomy and physiology, bookkeeping, typing, business English, office machines, etc. Programmed instruction textbooks are available for independent study. Seek those in your chapter who will work with you—many of us are limited to a specialty and could help you in our particular field. Read medical assisting books, attend monthly meetings and take advantage of educational portions of state and national conventions, etc.

This past year AAMA has engaged an educational consulting firm. This firm will review our current programs and methods, especially the content and the relationship to certification examination. We are striving to uphold present standards of excellence and assure that the examination is valid in terms of actual knowledge required of a medical assistant; we hope this evaluation will increase the number of individuals certified each year. President Marie Young has set a goal of 250 new CMA's in 1971. Let's have our "fair share."

James H. Sammons, M.D., special liaison from the AMA Board of Trustees, in his annual meeting address called medical assisting a "skill growing with science."

Dr. Sammons declared, "Medicine has given new recognition to the medical assistant, acknowledging the fact that capable hands are available to make the doctor more effective, and in ways are more sophisticated than was thought of previously. Medicine and the medical assistant have, quite naturally, evolved together. Just as the old time family doctor was limited to a modicum of drugs and procedures, the assistant was limited to certain duties and skills. But as a new age dawned for the doctor, an age of real scientific medicine—starting some 25 years ago—so a new age began for his assistant. She had been an apt pupil in a system largely of preceptorship, learning on the job, dealing with patients. But the new age brought a new direction into the academic field. Technology really brought about a new kind of medical assistant, a new profession and a new professionalism. Mixed in with the technological advances, of course, has always been a large portion of ingredients that will never be out of date—understanding and kindness.

"You do a great deal for doctors now," Dr. Sammons continued, "but you can do even more, especially in the area of public understanding. For you are truly our front line of communication with patients—who are the public."

Dr. Sammons urged that we be informed on peer review, legislation and health insurance. We should familiarize ourselves with the AMA Medicredit plan which proposes health insurance to Americans on the basis of their need.

There is another area of increasing importance where we can be of help—malpractice. Lawsuits over real or imagined grievances have reached a serious stage and malpractice insurance premiums have increased tremendously. Dr. Sammons pointed out some malpractice suits are filed due to a simple lack of courtesy. The plaintiff goes to court because he is unable to get any other sympathetic ear to hear his complaint. A malpractice suit need not be won by the plaintiff to destroy a doctor. When a suit is filed it becomes public record and newspaper stories damage the physician's reputation. "Plain old friendliness might head off some fancy legal language," says Dr. Sammons.

I hope you will consider these points seriously and be ready with the facts when you hear the medical profession maligned.

And now, before we know it, it will be May and time for our Iowa State Convention. Mason City will be waiting to welcome us so start making your plans now for May 14, 15, 16, 1971!

JEANNE D. GREEN

Woman's Auxiliary News

Spring Is Just Around the Corner

Two harbingers of spring receive lots of publicity this month: Mr. Groundhog has advised us what to prepare for; and St. Valentine reminds us that young men's fancies (and need I exclude women's) turn to love. It's the time of rebirth after winter's killing frosts.

So we gather our forces to bring this Auxiliary year to a happy climax. The January Board Meeting brought us new information and insights and the Legislative Brunch was a delightful occasion. Now our thoughts turn toward the Annual Meeting. The program has gone to press so look for it in the March issue of the JOURNAL and in the AUXILIARY NEWS.

May I remind you to start preparing your reports? Dues from state treasurers must reach national headquarters by March 31. Councilors and county treasurers redouble your efforts to send in dues. Necrology lists from state treasurers must reach the national office by April 15. The state president must receive report forms from state committee chairmen and county presidents by March 15. All narrative reports must be in the state office by March 31 to be printed. Your cooperation will be appreciated.

In spite of all these chores, have and be a lovely Valentine.

MARION PREWITT

Funds Help Medical Schools

The deans of the nation's medical schools have indicated to the AMA their increasing need for those medical school funds provided by AMA-ERF.

John W. Eckstein, M.D., Dean of The University of Iowa College of Medicine, states specifically that "the flexibility provided by these funds is unequalled, and the return for each dollar expended far exceeds the proportion which these funds represent of our total college budget."

In many instances funds received by the College of Medicine can be expended "only within definite budgetary limits."

"With funds from AMA-ERF we are able to capitalize immediately upon emerging opportunities, as well as provide a source of funds for those costs which may not be readily assigned elsewhere," Dean Eckstein wrote in response to an AMA request for information on the expenditure of funds received from AMA-ERF.

The U. of I. College of Medicine was awarded $11,474.66 from the 1969 Fund. According to the Dean of Medicine and the Fiscal Officer of the University of Iowa, the money was distributed in the following manner:

(1) $5,000 was used for annual dues (of $10,000) to the Association of American Medical Colleges;

(2) Office equipment at a cost of $1,680.78 was purchased in conjunction with the expansion and development of the administrative offices of the Dean;

(3) In conjunction with the exchange program of students between the College and the University of Oxford, England, $750 was provided the Oxford student for travel and a modest stipend; and

(4) Five communities active in searching for new clinical and basic science chairmen received $1,543.88 to support related travel, accommodations and associated expenses.

This information is given to show how important your individual contributions to the AMA-ERF Fund are and to encourage your personal gifts and memorials as well as those made in the name of your Auxiliaries, either from your treasuries or from money-making projects. Address questions or checks to:

MRS. ROLLIN N. PERKINS
State AMA-ERF Chairman
125 East Rusholme Street
Davenport, Iowa 52803

WA-SAMA—Is Tomorrow's Auxiliary

Growth has been the chief concern of the Woman's Auxiliary to the Student American Medical Association during its neophyte years!

In 1955 the idea for a national auxiliary for medical students originated at the University of Oklahoma. Prior to that time resident, intern, and medical student wives organized on campuses but were not affiliated beyond the hospital or college. Now WA-SAMA has a membership of 6,000 young doctors' wives, organized on chapter, regional and national levels.

WA-SAMA is composed of young, vibrant and capable women who are willing and eager to influence and guide through their own organization and ultimately through WA-AMA. Their goals are ours, that freedom in the practice of medicine will be a continuing reality.

The Woman's Auxiliary to the AMA has helped support WA-SAMA. Last year it contributed $3,000—a sum that helped WA-SAMA become financially independent for the first time in its history. This assistance made it possible for the organization to undertake the following new projects:

—*All 80 local chapters were supplied with Explo '70 kits developed under the direction of the Health Careers Chairman of WA-AMA and the AMA. They hope to contribute to the joint effort to stimulate recruitment in the paramedical professions by providing hospital tour guides from local chapters. They are in an advantageous position to communicate easily with secondary school students interested in health careers.*

—A GUIDE TO LIFE IN THE UNITED STATES FOR YOU AND YOUR FAMILY *is for the use of foreign medical graduates. Many local chapters also provide hospitality in connection with SAMA's summer program of foreign medical student exchanges, now in its second year.*

—*Programs have been developed in cooperation with the National Foundation to help insure greater participation in local community clinics offering prenatal care.*

Mrs. Jerrald Kuenn, president-elect of WA-SAMA, asks the support of Iowa physicians' wives. In a letter to Mrs. Prewitt she stated: "At this time we are hoping once again to have your individual support for our programs—and the ones we hope to develop in the future. Your donation of $5 to our Sustaining Membership Program will be a valued resource for those accustomed to working with tight medical school budgets. In terms of return per dollar spent on projects, I would match the wife of a physician in training with the best of efficiency experts! It is in order to better channel our natural interests in medically related services . . . an interest that will better equip us to join you as doctors' wives . . . that we are seeking your help in our fund-raising endeavors. Please consider joining us during the year."

Auxiliaries or individuals wishing to add their support may send checks to: Mrs. Jerrald Kuenn, Country Club Manor, Apt. D-11, York, Pennsylvania 17403.

Around the Hawkeye State

Wapello County

The October meeting was held at the home of Mrs. Paul Scott. Members of the High School Health Careers Club were invited to hear Miss Ruby Holton, Director of Nursing Education at the Indian Hills Community College, speak on the associate degree program in nursing.

Mr. Jay Pulis, Associate Director of City Planning in Ottumwa, spoke at the November meeting. A question and answer period followed the program which was held in the home of Mrs. Jack Dotterer.

Financial assistance was given a student in the Bachelor of Science in Nursing Program at Northwest Missouri State in Kirksville.

An Ottumwa girl, Linda Winston, was named by Governor Ray to be a delegate to the President's White House Conference on Children and Youth.

The Homebound Handicraft Sale, a cooperative project with the Easter Seal Society, was a success on November 11 and 12.

If You Are 16 or 60 . . .

As this is written Iowa is having one of the worst ice and/or freezing rain storms in some years.

Some driving tips for our icy and snow-packed streets may just remind you to take it "slow and easy."

The Iowa Loss Prevention Institute has put out some tips for winter drivers:

The accelerator should be lightly touched when starting a car and released immediately if the wheels spin or the car begins to side-slip. The procedure should be repeated until the car moves ahead normally.

Stops should be made by lightly touching the brake, releasing immediately if the car begins to skid, and repeating until the wheels stop sliding.

Approach turns at slow speeds to prevent dangerous skids.

When approaching a hill, gain enough momentum to reach the top but then slow down and look for stalled cars or obstacles on the downgrade.

Snow tires or chains are best for winter driving.

The Challenge to Women in the '70's

These excerpts are from a speech by Mrs. Louise Bushnell, Director, Women's Activities, National Association of Manufacturers, delivered at the 47th Annual Convention of the Woman's Auxiliary to the AMA in June.

There are many reasons for my satisfaction in being asked (to speak). My great respect for this organization, my healthy regard for the excellence of American medicine, my long years of experience with fair fees, devoted care and no nonsense diagnoses . . . but there are more.

It is a challenge to face an audience of doers. It is a challenge to face a multitude of clean, polite, listening, unbiased, hard working and loving volunteers.

It is a challenge to know that those who face me are a proof of what started in 1922 when a Texas lady, Mrs. Red, galvanized 24 other ladies from nine states to organize this superb Auxiliary.

Today you are 49 strong with Washington, D. C., making 50. Over 90,000 strong, you have raised millions of dollars to aid medical programs of all sorts including your fabulous implementation of the U. S. Cadet Nurse Corps during the war in 1943. And yet.

Forgetting the huge amount of money, for a moment . . . the service you render . . . in training, leadership, as "helping hands" for doctors, in the whole field of health care and medical legislation you are unbeatable. And yet.

Your virtues annoy your critics. Your good deeds enrage those who howl for government aid and intervention. Your loyalty to your own sorority, so to speak, makes you instantly suspect in the eyes of those who would destroy our world of joiners . . . save that which ends in ism and under government compulsion! And yet.

If I were not madly in love with my country . . . if I did not think it was the greatest country in the world, I might question the boldness of that person who came up with your convention theme, "The Heavenly Seventies!" . . .

Whatever woman did, she is an optimist, a fighter and a friend to have on one's side. For if the seventies are to be heavenly . . . let's roll up our sleeves all over again and work as we have *never* worked.

The involvement I suggest to you . . . the challenge this day . . . is to start off with what I choose to call "Clean the cerebral cobwebs." Let's clean them out of ourselves and when we have achieved *that* miracle, let us go out with fervor and using every means at our command, help clean them out of others.

What do I mean by cerebral cobwebs? Well . . . ONE, I mean that ANY well-trained person, with experience and ability, should be hired in any hospital, school, college, business, or what have you. I mean that the hiring should be based on the candidate's excellence, and *not* on the basis of color, creed, kinship or what have you.

TWO, another pet cerebral cobweb of mine is the dangerous one of snob appeal. The most innocent among us fall for it. Influence from eastern Europe!

Let us just make sure that in the future, when careers and jobs are discussed, that none of us slur any honest job in any field . . . not by tone, by facial expression nor by work . . . show prejudice of any kind.

Cerebral Cobweb number *THREE*, and this one will take guts to tackle!

Since exactly when does the average American woman need to be liberated by any group of her sisters? Since exactly when does Betty Friedan, author of the FEMININE MYSTIQUE, feel so driven to fight for us on the provisions of the Civil Rights Act?

The great hue and cry to end inequality, to crush male dominance, to lift the rocks off the bodies of unfortunate, oppressed women—this great hue and cry never seems to come from the women who have worked the hardest and become recognized in their fields.

The newly appointed young Dean at Yale, Brenda Jubin, is a bright woman of 27 years. She is the first woman to be named Dean in the 269-year history of this prestigious university. I guess she hasn't had time to waste on revolting! She's been working too hard in her distinguished, quiet way. She now heads one of Yale's 12 residential colleges . . . she advises 340 men and 70 women!

Not long ago, Mrs. Helen Thompson was named manager of the New York Philharmonic. She is responsible for every phase of the working operation of this superb orchestra. Mrs. Thompson is in her early sixties and is the first woman ever to manage a major American orchestra. She will be handling about $5.2 million a year. In addition, she will cope with a board, the unions; she will handle all contract negotiations, tours, scheduling and overall planning.

I am not trying to tell you that everything is easy. That everything is equal. If it were, life would be so boring, that we would immediately try to put it back on its present footing. There is sufficient work to do already . . . without embarking on a good deal of nonsense that is created by misfits, phony publicists and editors hungry to sell their wares!

If we shirk or refuse to help . . . what right have we to criticize? If we turn down opportunities to improve the quality of political (and governmental) leadership . . . what right have we to carp! If we turn down the chance to learn just

how our local or Federal governments work, what right have we to claim citizenship?

There is one special point that I would like to bring to your attention. Political affiliation does not necessarily indicate the extent of a person's liberalism or conservatism. There are a number of cases where present Republican governors are more liberal than liberals who have run against them, and vice versa. Several Democrats who are governors are very conservative, as you well know.

In other words, a party label does not always mean what it used to mean. It is not always an indication of political party philosophy. The average voter had better do her homework. Read not only the papers . . . but as much political literature and magazine-fare as possible—scan the records of the candidates, know what is actually at stake in an election. There will be many changes and it will be up to the informed, educated, civic minded women to help select the best candidates possible to act in the difficult years ahead.

The next 10 years in this country may well be those in which we decide whether our future will be one with freedom and latitude . . . or whether we backtrack into a controlled life entirely. Whether this control is based upon the "necessity of the moment, in order to keep the peace over chaos—a la Nazi" . . . or a control based upon the total overthrow of our Republic as we now still have it . . . is rather beside the point. Either change would be so revolutionary and ghastly that you and I would no longer be living in the United States we know today.

This is why I beg you to do your homework this time. To study well, to remember what you have studied, and to share your knowledge and experience with others.

There is nothing easy or simple about making choices. You are all busy people. You have all either professional or volunteer responsibilities.

What I have really tried to do is to *re-underline* the importance of the American volunteer. Come the day the volunteer is no more . . . the great, fresh, vital heart of this nation will have vanished.

We must not let this happen. By striving hard, we can make freedom work. *THIS IS OUR CHALLENGE FOR THE '70'S!* By discipline, by understanding, we can do much more for our communities. These communities are our responsibility. We *must* serve them in *every* possible way! By patience, work and prayer, we *can* find peace in race relations. *We must!*

You who are leaders where you live . . . stand very tall and let your actions speak louder than your words.

Just What Is Mental Health?

The social upheaval in our society today, the changes in morals and values, and the drug and sexually oriented problems of our young people have created mental health hazards that we have not known before. Dr. Dana L. Farnsworth, director of health services at Harvard University, says that in order to combat these mental hazards, we must first define mental health and differentiate it from *social good* or *moral good* or *practical good.*

"Mental health," he says, "is more than just the absence of overt mental illness. It is not freedom from anxiety, tension, dissatisfaction or all man's other negative states; nor is it conformity, lack of stress or constant happiness. It does not incline individuals to undermine authority, encourage their opposition to religious values or foster a determination to satisfy one's own cravings at the expense of others.

"What, then, is mental health?" he asks. "Perhaps it can best be defined as the state which permits an individual the freedom to interact positively with his environment and be capable of loving and working and playing. It is the ability to carry on self-determined activities with satisfaction to one's self and with a sense of responsibility to others. All persons, mentally healthy or mentally ill, are obliged to suffer in various ways. By his nature man cannot help but experience frustration, grief, pain, conflict, jealousy and fear. These emotions, as well as others, can be important stimuli to effective and constructive action. Happiness is often a by-product of resolving, in part or in whole, exasperating and difficult situations."

MRS. JONATHAN WILLIAMS
National Mental Health Chairman

Correction . . . for Cranberry-Raspberry Salad

Recipe in the December issue of the NEWS
Use ½ pt. sour cream (instead of 1 pt. as listed there.)

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501

President-Elect—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

Personals

Dr. L. D. Caraway, of Monticello, was a recent guest speaker at a meeting of the Greater Monticello Committee. Dr. Caraway's topic was the recruitment of physicians.

Dr. Thomas E. Porter, who has been serving as emergency department physician at St. Luke's Hospital in Cedar Rapids, has opened an office for the private practice of medicine in Marion. A native of Murphysboro, Illinois, Dr. Porter received the M.D. degree from the University of Illinois. He served his internship at both Mercy and St. Luke's Hospitals in Cedar Rapids.

Dr. Richard L. Sedlacek has been elected president of the medical staff at St. Luke's Methodist Hospital in Cedar Rapids. Other new officers are **Dr. John F. Troxel,** president-elect; **Dr. Richard F. Looker,** vice-president; and **Dr. Campbell F. Watts,** secretary-treasurer. Chiefs of Staff at St. Luke's in 1971 will be: **Dr. J. P. Barthel,** general practice; **Dr. R. A. Sedlacek,** medicine; **Dr. C. R. Scholl,** obstetrics; **Dr. W. J. Robb,** orthopedics; **Dr. F. E. Flannery,** pediatrics; **Dr. J. H. Lohnes,** radiology; **Dr. J. F. Kanealy,** surgery; **Dr. W. J. Moershel,** psychiatry; **Dr. J. D. Schuchman,** anesthesiology; and **Dr. R. F. Looker,** pathology.

Dr. E. K. Vaubel, of Estherville, has been elected chief of staff at Holy Family Hospital, and **Dr. R. M. Turner,** of Armstrong, has been re-elected secretary-treasurer. In other election activity **Dr. L. T. Donovan,** of Estherville, was chosen delegate to the IMS, and **Dr. H. A. Lindholm,** of Estherville, alternate delegate.

Dr. Linda K. Rames, of Iowa City, has been named by the American Academy of Pediatrics to serve as a Head Start consultant in Iowa. Dr. Rames is a 1964 graduate of The U. of I. College of Medicine and at present is an assistant professor of pediatrics at the college.

Dr. Robert A. Youngman, of Cedar Rapids, has been named to the Linn County Air Pollution Board of Review.

Dr. Richard D. Liechty, assistant professor of surgery at The U. of I. College of Medicine, lectured recently on "Metabolic Response to Trauma," at Mercy Hospital in Des Moines. Dr. Liechty's presentation was part of the Mercy Hospital Visiting Lecturer Program sponsored by the hospital staff and administration.

The medical staff of Skiff Memorial Hospital in Newton has re-elected the following officers—**Dr. M. R. Moles,** president; **Dr. H. A. Van Hofwegen,** vice president; and **Dr. L. D. Norris,** secretary-treasurer. All three physicians practice in Newton.

Dr. Roger A. Simpson has been elected president of the Mercy Hospital medical staff in Iowa City. **Dr. George S. Anderson** was elected vice president; and **Dr. Kenneth J. Judiesch** was named secretary-treasurer. All three physicians practice in Iowa City.

Dr. Vera V. French, director of the Scott County Mental Health Center, had the honor of turning the first shovel of dirt at gound-breaking ceremonies for a new mental health center to serve Scott County. Special guests at the event included **Dr. Paul Huston,** of Iowa City, head of the psychiatry department at The U. of I. College of Medicine, and **Dr. Ralph Lagoni,** of Eldridge, past president of the Scott County Medical Society.

Dr. William E. Connor, professor in the department of internal medicine and director of the Clinical Research Center at The U. of I. College of Medicine, is the author of one of seven articles appearing as a special symposium on nutrition in the November 30 issue of MODERN MEDICINE. Dr. Connor's article is entitled, "Diet and Coronary Heart Disease."

Dr. F. O. W. Voigt, of Oskaloosa, vice president of the Iowa Heart Association, is coordinating efforts (1) to secure a Cardiopulmonary Resuscitation Committee in each of the Iowa Heart Association's nine division areas and (2) to secure a physician-nurse CPR team in each county.

Dr. Bill Withers, of Waukon, was the guest speaker at a recent meeting of the Waukon Kiwanis Club. Dr. Withers discussed the application for an Iowa Regional Medical Program grant and the long range needs of Waukon Veterans Memorial Hospital.

Dr. Louis W. Banitt, an internist at the McFarland Clinic in Ames, was tenor soloist in a December presentation in Marshalltown of George Frederich Handel's "Messiah." Dr. Banitt has performed as a soloist with and member of numerous musical organizations, including the St. Olaf Choir, Rochester Male Chorus, Ames Choral Society, Arbach Singers, Mid-America Chorale and several church choirs.

Dr. John W. Eckstein, dean of The U. of I. College of Medicine, spoke on medical education and the doctor shortage at a recent meeting of the Clinton Rotary Club.

Dr. Loran F. Parker, an Iowa Falls physician since 1948, has been named associate director of medical education at Broadlawns Polk County Hospital in Des Moines. Dr. Parker received the M.D. degree at The U. of I. College of Medicine and interned at Broadlawns. He will work specifically with the new family practice program of the College of Medicine.

Dr. Robert E. Rakel, former chairman of the family practice program at the University of California College of Medicine at Irvine, has assumed new duties as professor and head of the department of family practice at The U. of I. College of Medicine. Dr. Rakel received the M.D. degree at the University of Cincinnati and interned at St. Mary's Hospital there. He later completed a residency in general practice at the Monterey, California Hospital.

At the recent annual meeting of the Saint Joseph Community Hospital medical staff **Dr. James C. Carr**, of New Hampton, was elected president; **Dr. Dennis R. Olsen**, of New Hampton, vice president; and **Dr. Curtis W. Rainy**, of Elma, secretary-treasurer.

Ulcer Re-lief!

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Dr. A. P. Randolph, of Anamosa, has been named Jones County Home physician. **Dr. Earl H. DeShaw**, of Monticello, has held the position from 1939 until recently.

The Boone County Medical Society has elected the following officers—all Boone physicians—**Dr. John F. Murphy**, president; **Dr. T. E. Kane**, vice-president, and **Dr. John R. Anderson**, secretary-treasurer. **Dr. E. E. Linder**, of Ogden, was elected a delegate and **Dr. Anderson**, an alternate delegate, to the IMS House of Delegates.

Dr. J. B. Thielen, of Fonda, was the recent recipient of a most unusual gift. The patients of the Morgan Home in Fonda presented Dr. Thielen with a handmade quilt which contained an element of familiarity for him. The quilt was made from an assortment of Dr. Thielen's old neckties given to the patients by his sister.

Dr. Carl R. Aschoff has been elected president of the Mercy Hospital medical staff in Cedar Rapids. Other new officers are **Dr. R. M. Quetsch**, president-elect; **Dr. Julius Pietrzak**, vice-president, and **Dr. D. F. Bomkamp**, secretary and treasurer. Section heads for 1971 will be: **Dr. Joseph Galles**, general practice; **Dr. R. M. Wray**, orthopedics; **Dr. John E. Walker**, obstetrics and gyne-

cology; **Dr. F. M. Skopec**, pathology; **Dr. Whealen M. Koontz**, medicine; **Dr. R. Y. Netolicky**, surgery; **Dr. Jerald Greenblatt**, pediatrics; **Dr. Plenny Bates**, anesthesiology, and **Dr. John R. Huston, Jr.**, radiology.

Dr. LeRoy K. Berryhill, of Fort Dodge, medical director of the North Central Mental Health Center, is conducting a course on Family Life at Iowa Central Community College. The education course is sponsored by the Fort Dodge Council of Churches.

Dr. Charles Fangman is the newly elected president of St. Anthony Hospital medical staff in Carroll. **Dr. Roland B. Morrison** will serve as vice-president and **Dr. Robert Christensen**, secretary-treasurer. All three physicians practice in Carroll.

Dr. Dennis D. Wilken has joined the staff of the Clarke County Medical Clinic in Osceola. A native of Carroll, Iowa, Dr. Wilken received the M.D. degree at The U. of I. College of Medicine in 1966. He served his internship at the U. S. Naval Hospital in Portsmouth, Virginia and served with the U. S. Navy from 1966 until his discharge this month. Part of his service consisted of duty aboard the nuclear powered submarine U.S.S. Patrick Henry.

The Jefferson County Medical Society has elected the following Fairfield physicians to office for 1971: **Dr. William C. Baumann**, president; **Dr. C. F. Watson**, vice-president, and **Dr. Terry Sutton**, secretary-treasurer.

Dr. P. J. Leehey, of Independence, has been elected chief of staff at People's Memorial Hospital. Dr. Leehey succeeds **Dr. Richard Myers**, also of Independence.

Dr. J. C. Comstock was recently elected president of the medical staff at Stewart Memorial Community Hospital in Lake City. **Dr. Dale Christensen** is the retiring president. Elected secretary was **Dr. Paul Ferguson**. He succeeds **Dr. Ashton McCrary**. All are Lake City physicians.

Dr. Richard M. Caplan, director, office of medical education at The U. of I. College of Medicine,

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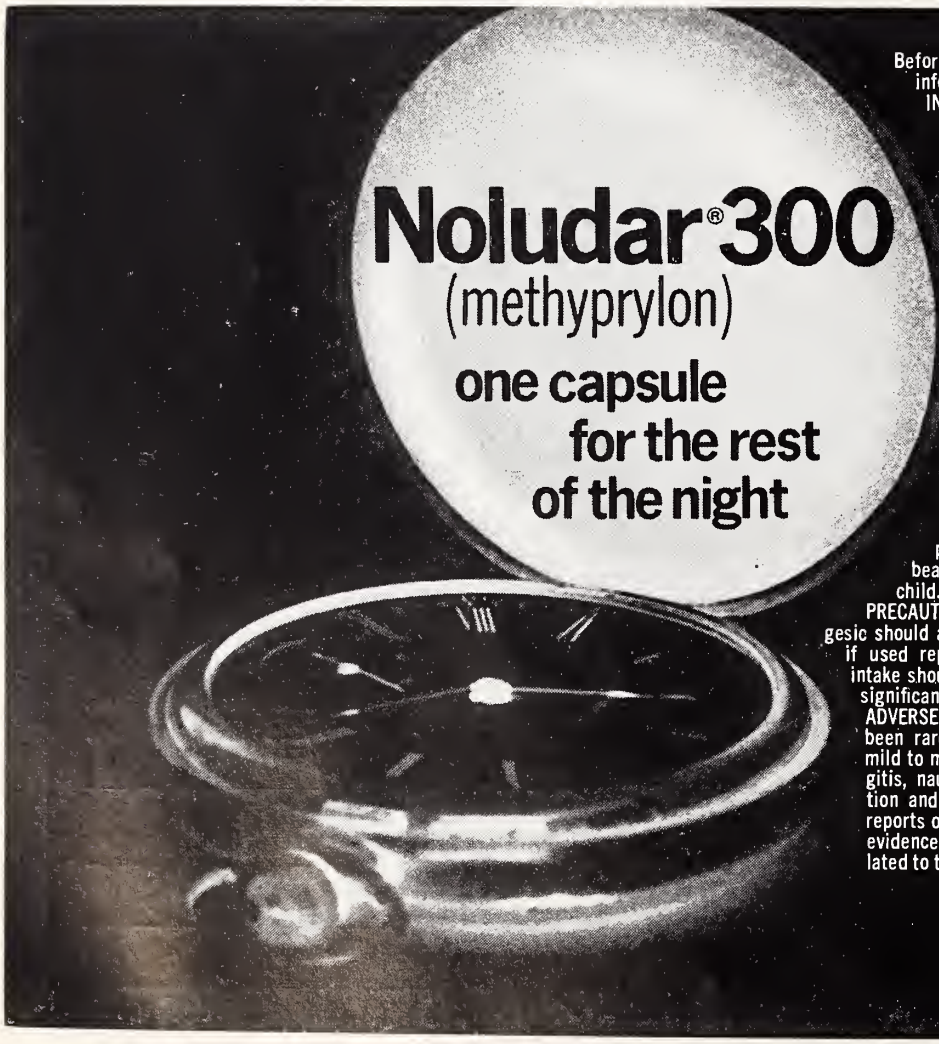
was one of 19 dermatologists recently honored by the American Academy of Dermatologists for their service on the Project Hope hospital ship.

A single set of officers will serve both Bethesda General and Mercy Hospitals in Fort Dodge. **Dr. James H. Habermann**, a Fort Dodge pathologist, has been elected to serve as president for both hospital staffs. Other Fort Dodge physicians elected to office are **Dr. William C. Robb**, president-elect; **Dr. E. M. Swanson**, vice-president, and **Dr. John P. Vanderheiden**, secretary. Because the two hospitals are separate corporations, the staffs will conduct business for each but will do so at a single monthly meeting, rather than having meetings at each of the two hospitals as in the past. This merged meeting approach is one step toward fulfillment of a recent pledge by the two Fort Dodge hospital boards to work jointly toward the establishment of a single, community-based hospital complex "to best serve the citizens of the Fort Dodge area."

Dr. B. A. DeLeon, of Clarinda, was the guest speaker at a recent drug seminar in Council Bluffs. Dr. DeLeon, who is chief of the Atlantic unit of the Mental Health Institute, spoke on the "Psychological Aspects of Drug Abuse." The seminar was part of the Adult and Continuing Education Program of the Iowa West Community College.

Dr. Clifford Rask, of Maquoketa, has been elected Chief of Staff of the Jackson County Public Hospital. Dr. Rask succeeds **Dr. O. L. Frank**, also of Maquoketa, who served as Chief of Staff for 18 years. In recognition of his 20 years on the staff of the Jackson County Public Hospital, Dr. Frank was named Chief of Staff Emeritus.

Dr. John W. Scott, associated with a pathology group in Omaha the last 10 years, has been appointed director of laboratories and pathologist for St. Luke's Medical Center in Sioux City. A 1955 graduate of the University of Nebraska School of Medicine, Dr. Scott completed his internship at Sacramento County Hospital in Sacramento, California, and subsequently completed a four-year-residency program in anatomic and clinical pathol-



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ogy at the University Hospital of the University of Nebraska in 1965. He is a fellow of the American Society of Clinical Pathologists and the College of American Pathologists and is certified in both anatomic and clinical pathology by the American Board of Pathology.

Drs. Martyn H. Bierman, Jr., and **Arthur L. Sciortino,** both of Council Bluffs, participated in a recent "Forum on Abortion" in Atlantic

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Two Harlan physicians, **Drs. Robert E. Donlin** and **William S. Markham,** were honored recently by Creighton University as they celebrated the 25th anniversay of their graduation from the University's School of Medicine. They and other members of the class of 1945 received special citations at the annual medical alumni banquet held on the Creighton campus in Omaha. The Creighton banquet was held in conjunction with the Omaha Mid-West Clinical Society meeting.

Dr. Bernard Diamond, of Waterloo, has been notified that his comedy-fantasy play, "The Contest," will be produced off-Broadway by the OMNI Theatre Co. in New York City in April. Dr. Diamond has also been informed that his play has won the "per se" award in a national playwrighting competition conducted by SMITH MAGAZINE, one of the leading literary magazines in the country. The play will be published in its entirety in Smith's spring issue. "The Contest" is the story of a time 500 years *post-blast* where science has progressed to such an extent there actually has been regression, and there is no human compassion. Dr. Diamond, who is an orthopedic surgeon, has also written a book entitled "The Obstructing Acromion," which sets forth a new technique in major shoulder surgery.

Dr. Frank T. Aledia, formerly with the Veterans Administration in Des Moines, has joined the Valley Clinic at Fort Madison. Dr. Aledia graduated from Santo Tomas in the Philippines and completed his residency training in urology at University Hospital in Baltimore, Maryland.

Deaths

Dr. William R. Rankin, 93, of Keokuk, the last alumnus of the Keokuk Medical College (the forerunner of The U. of I. College of Medicine), died at his home December 18. Dr. Rankin practiced medicine in Keokuk from 1913 until he retired two years ago at the age of 91. During World War I he served with the 26th Iowa Infantry and was awarded the French De Guerre. He was a member of Eagle Masonic Lodge No. 12 for over 50 years and a life member of the Iowa Medical Society.

Dr. John W. Jordan, 72, died at his home December 16. Dr. Jordan received the M.D. degree at Creighton University and served his internship at Mercy Hospital in Davenport. He had practiced medicine in Maquoketa for 45 years. Dr. Jordan was a veteran of World War I, a member of the American Legion and the Iowa Medical Society.

Dr. Harry L. Pitluck, 63, of Laurens, died January 7. Dr. Pitluck, a general practitioner in Laurens the past 27 years, was dead on arrival at Bethesda Lutheran Hospital in Fort Dodge after suffering a heart attack. He was a graduate of the University of Kansas and the University of Arkansas Medical School. He was a member of the American Legion, American Academy of General Practice, the Iowa Medical Society and the American Medical Association.

1971

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Iowa Medical Society

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April 25-28

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No charge is made for the ads of members, wives of deceased members of the Iowa Medical Society or physicians seeking Iowa locations; for others the cost is $1.00 per line, $5.00 minimum per insertion. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA MEDICAL SOCIETY, 1001 Grand, West Des Moines 50265.

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FOR SALE: 12 Station "Bogen" Intercom System, $250.00. Contact K. A. Garber, M.D., Corydon Medical Clinic, 100 East South Street, Corydon, Iowa 50060.

INTERNIST NEEDED—to join 9-man, all specialty group of 2 internists, 2 surgeons, 2 ob-gyn, 3 pediatricians. City of 40,000 located 1 hour drive from Milwaukee on Lake Winnebago which serves medical area of 75,000. Single hospital of 350 beds. Area affords excellent summer and winter recreational facilities. Superior schools, public and parochial and 2 colleges. Excellent initial salary leading to partnership in one year. For further informtion phone or write: W. G. Kendell, M.D., The Sharpe Clinic, S.C., 92 E. Division Street, Fond du Lac, Wisconsin 54935. Tel. 414-921-0560.

GENERAL PRACTITIONER needed in six man group in Northeast Iowa. All advantages plus that a group practice offers. Excellent facilities. Starting salary first year, $30,000. Partnership following second year. Address your inquiry to No. 1445, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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GENERAL PRACTITIONER NEEDED in young, 3-man general practice group, with surgeon. Progressive town of 6,000 with junior college, and a 50-bed hospital (JCAH approved). Salary leading to partnership. New office close to hospital. Contact Drs. Graham, Dunlay and Gude, 226 Rocksylvania Avenue, Iowa Falls, Iowa 50126. Phone 515-648-4233.

EXPANDING GROUP has openings for two internists and an ophthalmologist. Present group consists of seven general practitioners, an EENT, general surgeon, and an orthopedic surgeon. New clinic building. University town. One hour from St. Paul. Unlimited summer and winter recreation. Will finance travel for interview. For additional information call or write A. A. Drescher, M.D., or Russell Peterson, Clinic Manager, P. O. Box 337, Menomonie, Wisconsin 54751. Telephone 715-235-9671.

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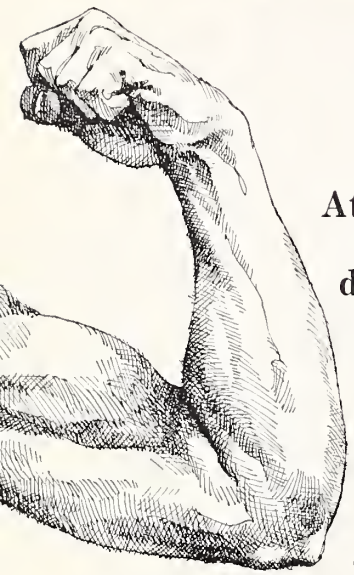
IN THIS ISSUE

- **IMS ANNUAL MEETING PROGRAM (See the Yellow Pages)**
- Complete Text of Report on Foundation for Medical Care
- Fat Embolism—Gaston J. Acosta-Rua, M.D., and William F. McCormick, M.D.
- Giant Jejunal Diverticulosis: A Rare Cause of Massive Upper Gastro-intestinal Hemorrhage —Joseph Callaghan, M.D., F.A.C.S.

MARCH, 1971

IF MORE MEN CRIED



At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]

Big boys don't cry. If more men cried maybe fewer would wind up with duodena ulcers. But men will be men—the sum total o their genes and what the are taught. Schottstaed observes that when mother admonishes he son who has hurt himsel that big boys don't cry, sh is teaching hin stoicism.[4] Crying is th negation of everythin society thinks of as manly A boy starts defending hi manhood at an early age

Take away stress you can take away symptoms

There is no question that stress plays role in the etiology of duodenal ulcer Alvarez[5] observes that many a man with a ulcer loses his symptoms the day he shuts u the office and starts out on a vacation. Th problem is, the type of man likely to have a ulcer is the type least likely to take lon vacations or take it easy at work.

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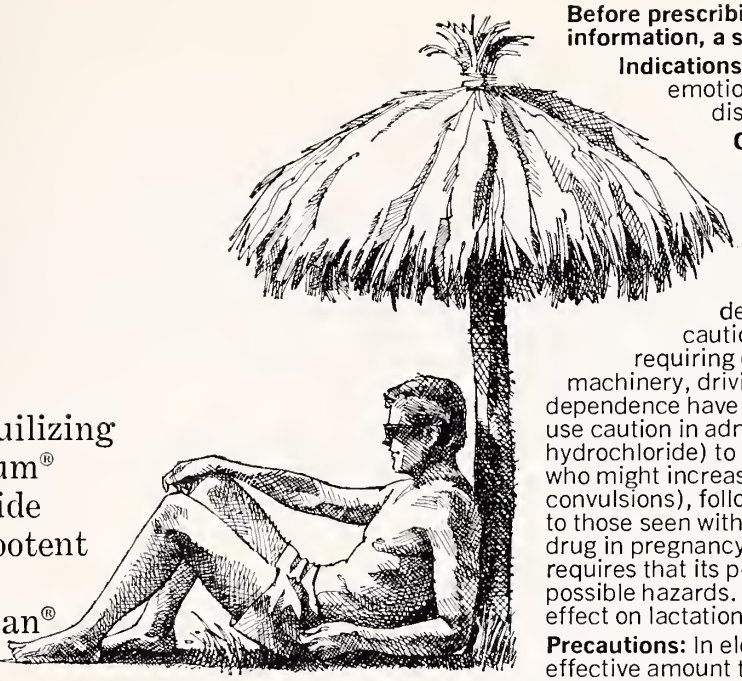
References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M. M. *et al.* (eds.): *Harrison's Principles of Internal Medicine*, ed 6, New York, McGraw-Hill Book Company, 1970, p. 1444 2. Wolf, S., and Goodell, H. (eds.): *Harold G. Wolff' Stress and Disease*, ed. 2, Springfield, Ill., Charles Thomas, 1968, pp. 68-69. 3. *Ibid.*, p. 257. 4. Schottstaedt W. W.: *Psychophysiologic Approach in Medical Practice* Chicago, Ill., The Year Book Publishers, Inc., 1960, p. 163 5. Alvarez, W. C.: *The Neuroses*, Philadelphia, Pa., W. B Saunders Company, 1951, p. 384.



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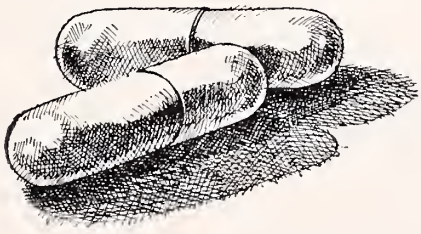

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Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

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Brief Summary

Indications

Erythrocin is indicated against gram-positive cocci — staphylococci (most strains), pneumococci and streptococci (including enterococci). Active against other pathogens, such as *Corynebacterium, Hemophilus, Clostridium, Neisseria,* and *Treponema pallidum,* the agents causing trachoma and lymphogranuloma venereum and primary atypical pneumonia caused by *Mycoplasma pneumoniae* (Eaton agent). Establish susceptibility of pathogenic organism when practical. Maintain therapeutic levels for ten days in the treatment of streptococcal infections to help prevent rheumatic fever and glomerulonephritis. Also consider local measures or surgery whenever indicated.

Contraindications

Known hypersensitivity to erythromycin. I.M. preparation also contraindicated in patients hypersensitive to the "caine" type of local anesthetics.

Precautions, Side Effects

Occasionally abdominal discomfort, cramping, nausea or vomiting may occur; generally controlled by reduction of dosage. Mild allergic reactions, such as urticaria and other skin rashes, may occur. Serious allergic reactions have been extremely infrequent; if hypersensitivity is encountered consider appropriate countermeasures, e.g., epinephrine, steroids, etc., and withdraw drug. The rare possibility of overgrowth of nonsusceptible organisms should be kept in mind; if it occurs withdraw drug and institute appropriate treatment. Local venous discomfort, generally mild, may occur with I. V. administration. I.M. preparation is suitable for deep intramuscular administration only; restrict use in children with small muscle mass. A mild transient local discomfort sometimes occurs following rectal insertion of Erythrocin Suppositories; discontinue if significant discomfort persists.

Administration and Dosage

I. ORAL: In adults with mild to moderate infections caused by readily-susceptible organisms 1.0 Gm. daily; more severe infections or those caused by less susceptible organisms 2.0 Grams daily; unusually severe infections up to 4 or more Gm./day. Daily dose in children is 15 to 25 mg./lb./day depending upon severity of infection. Daily dose should be administered in divided doses at 4-to-6 hour intervals. Continue treatment for at least 48 hours after symptoms have subsided and temperature has returned to normal. In fulminating or life-threatening infections, a parenteral form of erythromycin is preferred.

II. PARENTERAL: Intravenous administration may be continuous or intermittent (6 to 8 hour intervals); 1 to 4 Gm. daily in adults; 15 to 25 mg./lb./day in children, depending upon severity of infection. Recommended I.M. dose is 100 mg. (2 ml.) for adults, 50 mg. (1 ml.) for children 30 lbs. or more and 1.4 to 1.8 mg./lb. in smaller children. Injections are usually given at 6 to 8 hour intervals; may be given at 4 to 6 hour intervals for severe infections.

III. RECTAL: Following therapeutic doses are recommended in children: to 20 lbs., 1-125 mg. suppository every 8 hours; 20 to 40 lbs., 1-125 mg. suppository every 6 hours.

Change to oral therapy as soon as practicable.

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Foundation for Medical Care

On January 24, in Special Session, the House of Delegates of the Iowa Medical Society authorized an Iowa Foundation for Medical Care. This action was recommended in a Report submitted by the Society's Board of Trustees. The Report is provided here for the information of all IMS members. As noted, portions of the Report were presented by J. H. Sunderbruch, M.D., President, and K. E. Lister, M.D., Chairman of the Board. Following is the text of the complete report.

J. H. SUNDERBRUCH, M.D.

I am pleased to present the opening portion of this report which is submitted on behalf of the Board of Trustees. Our report brings to an important turning point a specific assignment handed the Society's officers last April by the 1970 House of Delegates. We believe a conscientious effort has been made over these past eight months to fulfill this assignment from the House. I speak from personal experience when I say many miles have been traveled and many words have been spoken preliminary to the preparation of this report.

There may be wisdom in launching this discussion by reminding ourselves of the basic purposes of the Society itself. Among the 10 basic purposes in the Articles of Incorporation are the following:

1. *To promote, extend, elevate and advance medical science and medical knowledge.*
2. *To advocate such measures as will tend to alleviate the sufferings, improve the health, and protect the lives of human beings.*
3. *To elevate the standards of medical education, to assist worthy and deserving medical students by establishing loan funds or being the trustee of scholarship funds.*
4. *To enact and enforce just medical laws.*
5. *To promote friendly intercourse among physicians, to guard, foster and protect their material and mutual interests and rights.*
6. *To enlighten and direct public opinion regarding the great problems of state medicine and the medical profession.*
7. *To establish, maintain and enforce as an incidence to membership, high standards of professional conduct and ethics. . . .*

Specifically, the role of the House of Delegates is described in the governing language in this way: "The House of Delegates shall foster and promote the constitutional purposes of the Society. With this end in view it shall have the power to create commissions and special committees from its own membership, from the general membership of the Society, or from the public at large."

We find within these official words the green light for our consideration this morning; the proposal before us is clearly within the purview of this Society.

This House of Delegates has been called on to weigh some important matters during the Society's 120-year history. Special sessions occurred in 1938, 1944, 1950, 1954 and 1959; one special session paved the way for Blue Shield, another helped sidetrack a national health scheme, one aided in establishing the professional relationship which now exists in Iowa between physicians and hospitals, and still another addressed itself to vendor payment inequities.

The single question before us today is this: *Would a Foundation for Medical Care make a positive contribution to the delivery of health care in Iowa?* From this basic question many subquestions emerge and it is to it and to them that the balance of this report is directed.

THE BACKGROUND—FROM EARLY 1970 TO EARLY 1971

Early in 1970 national activity drew the attention of the Board of Trustees to the Foundation concept. This interest was stimulated by several developments, not the least of which was the congressionally proposed Medicare Part C with its ominous health maintenance organization. That portion of the Board of Trustees report to the House of Delegates in 1970 dealing with the Foundation for Medical Care struck a responsive chord, for it received near-unanimous approval.

This passage was part of the Reference Committee report approved by the 1970 House: "The Reference Committee strongly recommends that the House of Delegates direct the Board of Trustees to (1) Proceed with an in-depth feasibility study of establishing a Foundation for Medical Care in Iowa, including all of the ramifications—legal and otherwise—that such a program might entail; (2) Arrange a series of meetings throughout the state late this summer and/or early fall to familiarize all members of the Society, but especially the delegates, with information about the structure and operation of a Foundation for Medical Care, and (3) Submit specific recommenda-

tions regarding the operation of a Foundation for Medical Care in Iowa to the House of Delegates at the earliest possible time, in special session if necessary."

These three recommendations have been fulfilled.

The physician education program began in Ottumwa on September 8 and ended in Des Moines November 18. In all there were 16 meetings with a total attendance of approximately 900 Iowa physicians. I am assuming most of you were present at one of these sessions and derived some informational benefit therefrom. Dr. Lister and I were personally gratified by the turn-out in almost all instances, and we were well pleased by the reaction to our message. As you may recall, we took an informal straw vote at each session. Our single question varied slightly from place to place, but it basically went like this: "Do you feel this Foundation concept as we have outlined it deserves further and serious consideration in Iowa?" The response was solidly affirmative and as a consequence of this favorable reaction we are gathered today. The Board of Trustees agreed (1) this strong indication of support for the concept, and (2) the previously noted mandate from the 1970 House of Delegates justified and required the call of this special meeting. Therefore, as President of the Society, I exercised my prerogative and called the House into special session.

WHY A FOUNDATION?

We come now to what in the vernacular of the day is termed the nitty-gritty, this is the question we have been wrestling with, the message we have been trying to get across these past several months.

On the broad front you could say the interest in and emergence of Foundations for Medical Care are a reflection of today's lifestyle, a response to various socio-economic and governmental phenomena. I recognize the risk in using phrases like lifestyle and social impact. These cause old-line midwestern conservatives to tremble and pronounce the "I told you so" benediction. I share these emotions and I recognize the demise of the individual and individual responsibility. But I contend too that we cannot assume a head-in-the-sand stance and remain strictly status quo.

The Board of Trustees has followed carefully over the years, just as you have, those developments which have altered the delivery of health care. We have seen the winds of change blow and we are aware of their continuing velocity. We cannot deny or reject their existence if we look at the total picture with complete candor.

The average Iowan is more aware of medical advances and improvements than his forefathers, and he wants and deserves access to them. He becomes distressed when the manpower picture and the cost picture run counter to his needs and to his pocketbook. This main-street thinking finds its way into the legislative hall and there it becomes a political football with the physician not infrequently becoming that odd-shaped leather instrument to which the foot is applied. Into this complex picture come experts from all quarters with theories, remedies and new programs; by experts I mean government officials, economists, the press, union officials, insurance representatives, etc. The physician has little opportunity or at least does not take the opportunity to introduce his expertise; his reading on the "clout" barometer is regrettably low. We believe this is a condition which an aggressive, positive instrument bearing the designation Foundation for Medical Care can correct. We are not so naive as to think this Foundation will have great national impact, but we do think it can provide appropriate and strong leadership with respect to the kind and amount of medical care delivered in the State of Iowa. The Foundation for Medical Care with peer review can improve the quality of medical care, influence utilization practices and develop some cost guidelines, all of which will be beneficial to the consuming public, as well as to the delivering profession.

This fall we touched on various of the economic, political and social forces bearing on the medical care core represented by the patient and the physician. We acknowledged these forces have been both positive and negative.

Many years ago the concept of prepayment service was introduced as a method of alleviating sudden unexpected and overwhelming financial obligations for health care. The growth of individual and group prepayment has been steady, fiscally sound and sometimes spectacular.

Take Blue Shield and the prepayment concept. This creation of the medical profession was spawned in the 1940's to counter a proposed universal health care scheme. This mechanism has gained broad public acceptance and now provides much of the fuel to power the health care system. Let me emphasize that the Foundation mechanism as viewed by your officers does not constitute any type of replacement for Blue Shield. Rather it is seen as a means of providing valuable support to Blue Shield and other health care programs.

The private health insurance industry is another significant force which the medical profession has supported. While the relationship with private insurance has been excellent, in many respects it has been a sort of neuter proposition. Now, however, we know from direct contact with high officials in the Health Insurance Association of America, there is excitement over the Foundation concept, and there seems to be a feeling of expectancy in terms of the potential relationship between the Medical Care Foundation and the private insurance field; I refer specifically to Hennepin County, Minnesota, where a Foundation program is about to be launched in association with approximately 25 companies; these companies represent virtually all of the health insurance pro-

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and the Latin **sedatus,**
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We know full well that more governmental involvement is inevitable. We are advised that the health maintenance organization carries a high priority with HEW Secretary Richardson. The HMO is a Kaiser-Permanente type of closed-panel, capitation system of health care delivery. It more than likely will receive further consideration by Congress as a possible Part C component of Medicare. While the HMO may seem somewhat remote in Iowa, a federal mandate could hasten its arrival; should the times and circumstances dictate a Foundation for Medical Care could conceivably function in this manner.

We must direct our attention not only to the HMO but also to the PSRO. PSRO stands for Professional Standards Review Organization. This federally proposed instrument to review physicians' services is contained in the Senate version of the now defunct Social Security legislation and is contained in the Bennett amendment. You may know that the Social Security amendments eluded passage by the 91st Congress, thanks mainly to the stern position of Congressman Wilbur Mills. But you may not know that the Bennett amendment creating a modified PSRO passed the Senate by a 44-18 margin. This legislation will be re-introduced next month and while it is risky to say just what eventually will evolve as a legislative requirement for professional review, it seems certain the 92nd Congress will produce something.

The point I wish to stress is this: The Bennett PSRO proposal requires the Secretary of HEW to contract with a local organization of physicians to perform professional review, and this organization may not be a state medical society. Should the PSRO proposal be re-introduced in its existing form, as is most likely, and eventually be enacted into law it will require the involvement in Iowa of a professional review instrument other than the state medical society per se. We believe this in itself is justification for having a Foundation for Medical Care in an organized form. I make these remarks knowing the fundamental distaste Iowa physicians have for involvement with the government, but I offer them too knowing the Bennett amendment allows the Secretary to contract with whomever he wishes if no organization or instrument is available or comes forward from the private sector. I believe he can even establish his own program of professional review for a given area.

Other forces are having and will have an effect on the way we treat our patients. Rightly or wrongly, hospitals are exerting more and more influence on the health care delivery system. The advocates of a national health care plan constitute an ominous force on the horizon. Labor and management are having a more and more dominant say as to the kind of health package their members and employees will have.

As we have been saying around the state these past three months the Foundation for Medical Care appears to be the kind of instrument which can come alongside these forces and exert strong medical leadership on behalf of Iowa's physicians and the patients they serve. *The Foundation appears to possess the means by which the profession can be positive in discharging its responsibility for directing the delivery of health care, and it can be made elastic enough to meet the changing circumstances which seem inevitable.*

We have told you some of the reasons we believe a Foundation may be the right kind of buffer between the patient-physician core and the forces bearing on it. Now Dr. Lister will bring into focus what we visualize as a Foundation for Medical Care in Iowa. The Foundation advocates we have confronted admonish that should Iowa decide to establish a Foundation, said Foundation should be structured to serve Iowa's particular and peculiar needs. They emphasize an Iowa Foundation cannot be fashioned exactly after one already in existence. I should say while we agree with this thesis we have found much about the previously mentioned Hennepin County Foundation which appears right for Iowa. The Foundations of long-standing in California go beyond our thinking in many respects, though we have gleaned much from them. Now I will defer to Dr. Lister.

K. E. LISTER, M.D.

THE BASICS OF A FOUNDATION

Let me enumerate those basics that we believe should be included in an Iowa Foundation for Medical Care. We do not suggest that all aspects of the Foundation become operative initially, rather we would urge that the entire formative process be one with physician education uppermost, one where maximum effort is exerted to gain member understanding of the program and its objectives:

1. The Iowa Foundation for Medical Care should be established as an instrument of the state's medical profession and through it assure quality services to Iowans at an equitable cost and in appropriate quantity. It should be an incorporated non-profit body under the sponsorship of the Iowa Medical Society and it should utilize the same administrative staff. The election of its governing board should be devised in such a way as to assure the Foundation will always be responsible to the parent organization.

2. The Iowa Foundation for Medical Care should be open to every physician eligible for membership in the Iowa Medical Society. Foundation membership should be on a voluntary basis and members should be privileged to participate in all programs and activities of the Foundation.

3. The Iowa Foundation should include only physicians on its governing board, but this should not eliminate the idea of utilizing informed lay individuals in an advisory capacity.

4. The Iowa Foundation should hold as funda-

mental a belief in free choice of physician and/or patient and fee-for-service medicine.

5. The Iowa Foundation should accept responsibility for knowing the strengths and weaknesses of the medical care delivery system in the state and work toward upgrading any deficiencies.

6. The Iowa Foundation should become the profession's mechanism for establishing and advocating certain health care criteria. It should be prepared to advise those structuring health care programs as to what constitutes comprehensive care. It should exert its influence to gain acceptance of these comprehensive programs. It might additionally offer its stamp of approval to those programs which meet the established criteria.

7. The Iowa Foundation should become the profession's instrument for overseeing the actual delivery of medical care. It should be entrusted with and should accept the responsibility for making sure each dollar spent for health care services is a justifiable expense. It should measure the quality, quantity and reasonableness of cost of care to the best of its ability.

8. The Iowa Foundation should utilize a well-designed and active peer review program to achieve the objective set forth in the preceding provision. Pursuant to this and through appropriate committee structuring, it should bring under scrutiny the general rate of escalation in fees for physicians' services; it should establish dynamic usual and customary fee norms; it should identify and evaluate cases which exceed these norms; and it should offer to the patient or third party the profession's judgment as to the value of the services rendered in specified cases.

9. The Iowa Foundation should devise the standards and norms referred to from current utilization and charge data and use them to carry out its responsibility of assuring necessary care of good quality at an equitable price. As stated, these standards and norms should be developed to cover pricing and utilization, they would be related to the appropriateness of hospital confinement by diagnosis as well as length of stay in relation to diagnosis.

10. The Iowa Foundation should through a continuing education program provide comprehensive information to member physicians as to how these standards and norms are devised, how they are kept current and how they are utilized.

11. The Iowa Foundation should require agencies utilizing its review services to accept its decisions, obviously with appeal mechanisms available to all involved parties. We believe the professional overview blueprinted in these several points will assure most practitioners their usual and customary fees, will elevate the quality of medical care, will satisfy the public and the government, and will preserve a reasonable measure of practice freedom.

12. The Iowa Foundation should be established to provide its reviewing and other consultative services to any private or governmental health care program desiring them and should be authorized to contract with these entities to recover the cost of the services provided.

13. The Iowa Foundation should establish modest initial dues to be paid by Foundation members to cover legal and other organizational costs, with this requirement being phased out as contractual fees are made to cover operating costs.

The presence of control is apparent in the provisions I have set forth; this is not denied. What deserves utmost stress at the close of these remarks is that these controls are in the hands of your peers, your professional colleagues, and you yourself if you wish to become an active participant in the Foundation.

At the outset of this report time was taken to refresh ourselves as to the aims and purposes of the Iowa Medical Society. I believe almost any one of the stated objectives of this Society could be invoked to build a sound case for the creation of an Iowa Foundation for Medical Care. If approached with good judgment we believe the Foundation mechanism has the potential for benefiting you, your patients and your professional colleagues.

In conclusion then, it is the wish of the Board of Trustees to place before this special session of the House of Delegates the following recommendation:

That the House of Delegates authorize an Iowa Foundation for Medical Care and that it assign to the Board of Trustees responsibility for preparing the necessary organizational documents for presentation, review and ratification by the House of Delegates at its annual session in April.

Mr. Speaker, I move the adoption of this report.

Respectfully submitted,
K. E. LISTER, M.D., *Trustee and Chairman of the Board*
R. L. WICKS, M.D., *Trustee*
J. F. PAULSON, M.D., *Trustee*
J. H. SUNDERBRUCH, M.D., *President*
L. J. O'BRIEN, M.D., *President-Elect*
H. R. HIRLEMAN, M.D., *Vice President*
V. L. SCHLASER, M.D., *Secretary*
T. A. BURCHAM, M.D., *Treasurer*

FOR STUDY PURPOSES

The proposed Articles of Incorporation for the Iowa Foundation for Medical Care will be included in the April issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY.

IOWA MEDICAL MISCELLANY

Member schools of the Iowa High School Athletic Association are now voting on the extent to which they wish to use a prep wrestling weight determination plan supported by the Iowa Medical Society. The plan utilizes an "ideal weight formula" perfected by C. M. Tipton, Ph.D., Iowa City, and endorsed by the IMS Committee on Sports Medicine. The IHSAA schools are being asked to indicate whether they want the plan used on a mandatory basis, on a voluntary basis or not at all.

• • •

No change in Iowa's therapeutic abortion statutes will occur during the 1971 session of the General Assembly. This became a fact February 11 when the House of Representatives defeated (55 to 45) a bill to modify the century-old law. Medical guidelines sought by the Society were embodied in the defeated legislation; however, the extended debate had little to do with the medical aspects of the issue. Legislators supporting the present statute generally regarded the unborn child as a live being entitled to the protection of the state. Supporters of a change argued abortion is a highly personal matter which should be left to the woman and her husband and her physician.

• • •

Other medically-related state legislation: (1) Ready for introduction is a bill which permits establishment of a state radiation protection program; the presence of a small appropriation reduces the likelihood of its passage. (2) Financing is also holding up the state forensic laboratory; a state appropriation appears unlikely to be authorized; other sources of support are being explored. (3) The phrase "thorough medical examination" will come out of state statutes setting forth premarital examination requirements with the anticipated passage of a soon-to-be introduced bill by the House Social Services Committee. (4) Awaiting consideration is a bill to create a new state library board (to include one physician) to have jurisdiction over state libraries, including the medical library. (5) In the works is legislation creating a renal disease advisory committee to function under the State Department of Health. The bill would fund a regional dialysis program and aid to individuals who require this type of care. Its chances of passage are dimmed by the $250,000 price tag it carries. Other items pertaining to chiropractic, medical manpower, paramedical licensure, peer review liability, etc., are in the legislative hopper.

• • •

As of mid-February 17 renal transplantations had been accomplished at The University of Iowa; 16 of the patients were then living with well functioning kidneys. Efforts are now being exerted to develop a cadaver kidney supply program which will permit expansion of the transplant program.

• • •

Iowa legislators were recognized by the Iowa Health Council at a February dinner in Des Moines. The nine-member Council (which includes the IMS) traditionally hosts this event for the state's lawmakers.

• • •

Legal language establishing a Foundation for Medical Care in Iowa is now being prepared. This assignment was undertaken immediately following the January 24 special session of the IMS House of Delegates at which establishment of a Foundation was authorized. The organizational documents will be presented to the House in April for review and ratification. The full report of the IMS Board of Trustees as presented at the special session is provided in this issue of the JOURNAL *beginning on page 133.*

• • •

Physicians' assistants, drug abuse, ecology and peer review are among topics scheduled for consideration at the 1971 Annual Meeting of the Iowa Medical Society. Dates of the Annual Meeting are April 25 to 28. For complete details please see the Annual Meeting Program insert in this issue.

• • •

The 1971 IMS Nominating Committee will meet at 2:00 p.m., Sunday, March 28, at IMS Headquarters in West Des Moines.

• • •

The Society's 12 district councilors have been designated as official IMS representatives to the Regional Advisory Group (IRAG) of the Iowa Regional Medical Program. Two other Society IRAG representatives are J. H. Sunderbruch, M.D., Davenport and Terry Dynes, M.D., Decorah. In addition, 126 physicians serve on specific IRMP committees or are involved in particular projects.

• • •

Appointment of George Winoker, M.D., as director of the State Psychopathic Hospital and head

(Please turn to page 143)

THE DOCTOR'S BUSINESS

Is Your Present Office Adequate?

LARRY E. LEAVERTON
Des Moines

In most Iowa cities and towns over the past 20 years there have been constant changes in the location and types of physicians' offices. The major trends are (1) to larger layouts to accommodate small groups, (2) to major building projects for large groups, and (3) to movement from congested areas to outlying areas with more space and available parking. Hospital proximity has appealed to many doctors.

Whether you are planning a new office building, remodeling space in an existing building, or rearranging your present space, careful planning is necessary. Be certain you are doing everything to correct any problem short of a move, which represents a major expense. Some doctors are still dissatisfied after going through the expense of an improperly planned move. Beyond this, a complete feasibility study of the costs and economic factors of the move must be made.

The most common reason for moving or rearranging an office is the physician who adds his first associate, or the group which adds more physicians. The shortage and distribution of physicians is well known. Many Iowa physicians are looking for new associates—and have been for many years. Findings of the American Medical Association Placement Department disclose that Iowa ranks 36th among the 50 states as to preference for a place to practice. This means that in addition to aggressive recruiting, you need an attractive, well located, efficiently planned office, with adequate space for the associate you are attempting to attract.

Another possible reason for a move may result from a population shift when the doctor finds his location inconvenient in terms of accessibility to his hospital or his patients.

Or, a change may be in order when the doctor finds himself unable to see the increasing number of patients in an improperly designed layout.

How much office space is necessary, and what will it cost?

A busy physician will require approximately 1,000 square feet in the average instance, depending on his specialty and type of practice. The importance of conserving space has been learned the hard way by some groups who have listed their desired space in what they consider an ideal layout only to then find the construction costs prohibitive. For example, an unnecessary 10′ x 10′ room, which would be 100 square feet of space, at current average medical building construction cost would amount to $25 to $30 a square foot and obviously add $2,500 to $3,000 to the cost of the building. If you are renting the space at $5 to $6 per square foot per year it would add $500 to $600 to your annual rent.

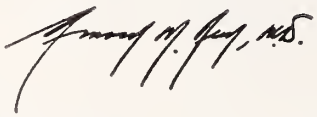
Another common error in calculating space requirements for small and large groups is to plan the *ideal* suite for each doctor for his peak periods, rather than planning a more flexible arrangement where some common rooms are shared with associates. With increasing hospital loads, days off, vacations, post-graduate work, etc., there are few hours in the day, or days in the week, where all doctors in a group are seeing office patients at the same time. While the cost of space is expensive, some planners will swing too far in the other direction and wind up with not enough space or no provision for expansion. If an additional examining room enables you to see a few more patients a day or save a fair amount of time it will pay for itself.

Based upon medical buildings completed fairly recently in this area, you can expect a range of $25 to $30 per square foot in building costs. These figures are constantly increasing as materials and labor continue to mount. Rentals are increasing also as building owners are faced with problems of expensive mortgage money, increased property taxes and mounting maintenance costs. Generally speaking, the larger the city the greater the rent. In large metropolitan areas such as New York, Chicago or San Francisco, prime rental costs in choice locations are soaring to as high as $10 to $20 per square foot. Fortunately in Iowa good medical office space seldom exceeds the $4.50 to $6.00 range.

Any doctor, or group of doctors must have first class medical facilities whether they own or rent. By first class, we mean the facilities must be well located, they must be adequate in size, and they must be efficient in layout. In our experience a chief motivating factor which causes a doctor to buy or build his own building is the absence of one of these factors in his present space.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Camp Hertko Hollow for Diabetic Youth

The 1971 Camp Hertko Hollow for Diabetic Youth (ages 8-15) will be from August 8 to 15. The camp is a non-profit operation and is sponsored by the Iowa Diabetes Association, the Iowa Dietetic Association and the State Department of Health. Founded in 1968 under the guidance of Edward Hertko, M.D., Des Moines, the camp is held at the 4-H Camping Center near Madrid.

The camp schedule is specially structured to meet the needs of diabetic youth and to provide for them a happy camping experience. The camper becomes part of the crowd in terms of daily injections and urine testing and gains self-confidence as well as knowledge of how to care for himself.

The camp staff is composed entirely of volunteers—doctors, nurses, dietitians and counselors. The ratio of almost one counselor to every two campers enhances the program. Dr. Hertko directs the medical program. Camp activities include swimming, archery, baseball, hiking, volleyball, trampoline, golf, fishing, crafts, cookouts, canoe trips, etc.

The camp fee is $60 for the week, but no child is denied the opportunity to attend camp for lack of finances. Various groups and individuals provide partial or full camperships. Applications for camp are due May 31. Applications may be obtained by writing Camp Hertko Hollow, Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa 50309.

Iowa Public Health Association

The Iowa Public Health Association was organized in 1925 as a non-profit organization. It has grown to approximately 400 members who have an interest in the public health of the people of Iowa. The purpose of the association is "To safeguard and promote the personal and public health of the residents of the State of Iowa."

The specific objectives are:

1. To raise the level of understanding of the citizenry of the state through health education.

2. To work with local health groups in surveying the community needs and make specific recommendations.

3. To assist in the scientific advancement of citizens engaged in public health work.

4. As an association, to review present health laws and legislation, and to make recommendations for the more effective operation of public health programs.

5. To aid in the correlation of activities of all organizations engaged in public health work.

6. To bring together all professional and lay people interested in public health for the people of Iowa.

The 44th annual meeting will be held on May 6 and 7 in Des Moines at the Hotel Savery. Topics will include Venereal Disease, Family Planning, Pollution Control and Drug Abuse.

Iowa physicians are encouraged to join the Iowa Public Health Association and participate in its activities. Annual dues are $5.00. Further information can be obtained by writing to: Iowa Public Health Association, Post Office Box 55, Ottumwa, Iowa 52501. If you wish to join, please send a check for $5.00 to the above address, along with your name and address.

Praise Rubella Efforts

State Health Commissioner A. M. Reeve, M.D., has praised county medical societies and individual physicians for the cooperation and assistance provided in the recent statewide rubella immunization program. In a February letter to all county society secretaries, Dr. Reeve advised that 523,023 doses of vaccine were administered during the program (80 per cent of the susceptibles in the target age group received vaccine). Dr. Reeve requested Iowa physicians to encourage parents to secure rubella immunizations for their children as soon as they reach one year of age.

Modification of State Department of Health Tuberculosis Control Program

In recent years much progress has been made in the prevention and control of tuberculosis. The incidence and prevalence of tuberculosis in Iowa at present is at an all time low level.

Methods to prevent the development and transmission of tuberculosis depend upon many factors. Control programs need periodic re-evaluation to make sure the most effective methods are being used.

DECLINE OF TUBERCULOSIS

Mass tuberculin skin testing programs in schools, with x-rays of positive reactors, have been carried on for a number of years. Recently the yield from this program, in terms of cases of tuberculosis found for the state as a whole, has shown a marked decline. While there is some variation from county to county, last year for the entire state less than one-half of one percent of the students tested reacted positively to the tuberculin test. Of these tuberculin positive reactors, not a single case of tuberculosis was found. Of equal importance is the fact that x-raying previously known reactors discovered no cases of tuberculosis. During 1969, 12,778 films were taken by the State Department of Health and the Iowa Tuberculosis and Respiratory Disease Association mobile x-ray units without finding a single case of tuberculosis.

Most cases of tuberculosis in Iowa now develop in persons past middle age and in the advanced years. In the two years, 1968 and 1969, a total of 244 active cases of tuberculosis were reported of which only six were under 15 years of age. Five of the six were pre-school age and only one was in the five to 14 year old school age group. Each of these children had contracted the disease from older relatives and none of them was found by the school testing program.

Since large scale school programs of testing students are no longer considered to be effective in finding cases of tuberculosis for the state as a whole, the statewide program has been discontinued. Based on local conditions some individual schools may wish to do tuberculin skin testing on a selective basis.

TUBERCULIN TESTING PROCEDURE

For officials of a school who, in cooperation with local physicians, wish to do tuberculin testing the following information is provided:

A. Tuberculin (PPD), needles and syringes may be obtained from the State Department of Health.

B. Consultation regarding application and reading the test may be obtained from the State Department of Health or from the Iowa Tuberculosis and Respiratory Disease Association. The intradermal (Mantoux) test, using a 5 TU dose of PPD, is recommended because of more accurate control of dosage and consistency and reliability of results. Preciseness in application, reading and recording of the tests is emphasized. Multiple-puncture techniques are recognized as screening procedures. Persons with a positive (5 mm. or larger induration) Tine or Mono-Vacc reaction are managed the same as persons who react with 10 mm. or more of induration to the standard Mantoux test. Persons with a doubtful (2-4 mm. induration) Tine or Mono-Vacc test should be retested by the Mantoux method with management of the person based on the Mantoux reaction. All reactions to the Heaf or Sterneedle test should be checked by retesting with the standard intradermal test. The jet injection method of delivering 5 TU of PPD intradermally may be considered as a screening test provided a properly trained person is available to operate the jet gun. The Vollmer patch test is not recommended because of its unreliability.

C. Results of skin testing, including size of reaction in millimeters, should be reported to the State Department of Health on forms provided.

D. Positive tuberculin reactors should have adequate medical and bacteriological follow-up examinations. This should include at least a chest x-ray. Tuberculin testing without follow-up of reactors is useless. Isoniazid (INH) 300 mgm. per day for a year is strongly recommended for all positive tuberculin reactors.

E. Requirements of the Department of Public Instruction that an annual check for tuberculosis be made of all school teachers and other school employees should be compulsorily followed whether or not there is a skin testing program for children. For the adult school personnel an annual tuberculin skin test for non-reactors or an annual chest x-ray for all known positive reactors is recommended.

It is recommended that children be tuberculin tested according to the schedule of the American Academy of Pediatrics during routine pediatric follow-up visits to physicians.

TUBERCULOSIS PROGRAM REDIRECTED

Increased efforts now will be directed toward other aspects of the tuberculosis control program. Emphasis will be placed on (1) adequate examination and treatment of known cases with the objective of rendering them non-infectious, (2) adequate testing and examination of persons who have had close contact with known cases, (3) finding sources of infection of new cases, (4) chemoprophylaxis when indicated, and (5) other surveillance activities.

Tuberculin testing with proper follow-up of

positive reactors is encouraged among groups likely to have an above average prevalence of infection such as residents of nursing homes, county homes, and penal institutions.

MOBILE UNIT DISCONTINUED

During the years of operation of the mobile units, persons needing periodic chest x-rays visited the mobile unit while it was in the county in connection with the school program. Since the mobile x-ray unit no longer will be available, persons needing periodic chest x-rays should obtain these from the local hospital or physician. In some cities out-patient clinic services are available from State or local Public Health Agencies. In the event the expense is too great for the patient it is suggested that local voluntary or official funds, previously used locally for the mobile unit program, might be used for this purpose. Arrangements for such assistance should be made in advance.

SUMMARY

This modification of the tuberculosis control program is not to be interpreted as minimizing the importance of tuberculosis. It is still an important communicable disease. This change in methods is intended to utilize the efforts of personnel and funds in the way that will be most effective in attaining the goal of eradication of tuberculosis.

What are med students coming to?

Ever had thoughts like these? Then consider *The SAMA News.* Packed full of articles by and about medical students at the University of Iowa, *The SAMA News* can help answer this question. Medical students today believe that communication with private practitioners is vitally important to medicine in Iowa. They believe the time has come for each side to stop accusing the other, and start talking. Articles such as "Practice in Iowa" (which was publicized in the *Des Moines Sunday Register*) are a start in this direction. They are interested in letting you know how they feel, and, believe it or not, they are tremendously interested in how you feel about them. Won't you take the time to help them find out? A ten issue subscription to *The SAMA News* is a start. Send $3.50 to Circulation Manager, *The SAMA News,* University of Iowa College of Medicine, Iowa City, Iowa 52240.

The SAMA News
a start at communicating

Morbidity Report for Month of January 1971

Diseases	Jan. 1971	1971 to Date	1970 to Date	Most January Cases Reported From These Counties
Brucellosis	1	1	2	Dubuque
Cat scratch fever	1	1	0	Pottawattamie
Chickenpox	741	741	1101	Black Hawk, Fayette, Linn, Polk
Conjunctivitis	15	15	23	Scattered
Encephalitis				
Echo 9	1	1	0	Monroe
Viral	1	1	0	Scott
Gastrointestinal viral infection	1037	1037	21	Harrison, Keokuk
German measles	70	70	256	Linn
Gonorrhea	321	321	346	Black Hawk, Linn, Polk
Histoplasmosis	1	1	3*	Polk
Impetigo	52	52	64	Des Moines, Polk
Infectious hepatitis	39	39	35	Pottawattamie, Winneshiek
Infectious mononucleosis	82	82	59	Johnson
Malaria, imported				
P. vivax	3*	3*	1*	Polk, Tama
Measles	38	38	0	Appanoose, Wayne
Meningitis				
Echo 9	2	2	0	Cerro Gordo, Polk
Meningococcal	3	3	0	Kossuth, Polk, Poweshiek
type unspecified	3	3	2	Bremer, Pottawattamie
Meningo-encephalitis	1*	1*	4	Jefferson
Mumps	357	357	336	Black Hawk, Des Moines, Van Buren, Washington
Pneumonia	97	97	70	Scott
Q-Fever	1*	1*	0	Johnson
Rabies in animals	40	40	7	Scattered
Rheumatic fever	9	9	4	Black Hawk, Scott
Salmonellosis				
S. cubana	2	2	0	Jasper, Scott
S. derby	1	1	0	Floyd
S. enteritidis	1	1	0	Polk
S. newport	1	1	1	Ringgold
S. typhimurium	1	1	3	Linn
Shigellosis				
S. sonnei	2	2	16	Polk, Pottawattamie
Streptococcal infections	545	545	706	Benton, Jefferson, Johnson
Syphilis	36	36	40	Polk, Scott
Tuberculosis, active	7	7	7	Des Moines

*Delayed

Iowa Medical Miscellany

(Continued from page 138)

of the Department of Psychiatry at The U. of I. College of Medicine was announced in February. Dr. Winoker is a professor of psychiatry at the Washington University School of Medicine in St. Louis. He will succeed Dr. Paul Huston who is retiring. The appointment fulfills a desire of the Society that a physician continue to serve dually as hospital director and head of the department.

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The Society expects to be represented in March at an AMA meeting to consider medicine's role in the forthcoming White House Conference on Aging.

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Cases of infectious hepatitis in Iowa for the first half of 1970 were slightly fewer than for the same period in 1969; the 1969 cases totaled just under 400, according to the State Department of Health. In 1954 there were 3,619 cases of hepatitis in Iowa; in 1961 there were just under 2,000. Since 1962 there have been under 600 cases per year.

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Seventeen voluntary areawide health planning councils are now active in the state. Stimulation of these multi-county units has been a primary objective of the Health Planning Council of Iowa during its five years' existence.

• • •

In its recently prepared 44-page report the Committee on Health Manpower of the Iowa Comprehensive Health Planning Council has declared there is an "impending crisis" in the state's health care system. The report contains several recommendations on which "action must be taken immediately." These recommendations include (1) increasing the number of medical and osteopathic graduates; (2) developing strong departments of family medicine; (3) using the community hospital in the educational curriculum; (4) designing new models for rural health care; (5) experimentally requiring a certain number of medical students to practice for a specified period in a shortage area in Iowa; (6) developing training programs for physician assistants; (7) increasing the number of graduates from associate and baccalaureate degree nursing programs, as well as LPN and nursing aide programs; and (8) developing community health centers as needed in Iowa.

• • •

The Iowa Medical Society recently joined other organizations in extending congratulations to the State of Iowa on the recent 50th anniversary of its vocational rehabilitation program. The Iowa program is considered to be among the 12 best in the country.

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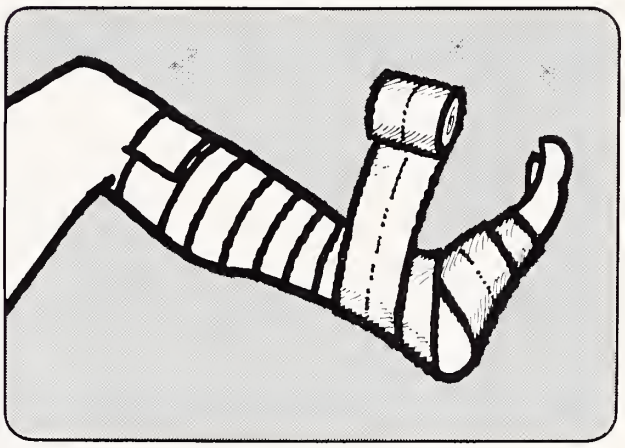

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Scientific Articles

Fat Embolism

GASTON J. ACOSTA-RUA, M.D., and
WILLIAM F. McCORMICK, M.D.
Iowa City

PROBABLY ONE OF THE MOST commonly overlooked complications of trauma is fat embolism (FE). The clinical picture varies from fatal fulminating forms to mild cases which are difficult to substantiate conclusively.

Following is a brief presentation of two fatal illustrative cases of FE and a review of the English language literature.

ILLUSTRATIVE CASES

Case No. 1

An 18-year-old white male sustained multiple injuries on May 30, 1969 when a tractor he was driving fell into a ditch. The patient was in shock when admitted to a local hospital. Exploratory laporatory and splenectomy were performed the same day. A chest tube was placed for drainage of a left pneumothorax. Fracture of the left humerus was noted, and the left arm was put in a cast. The following day it was necessary to re-explore the abdomen and a portion of gangrenous bowel was resected. The patient was oliguric and 36 gms. of Mannitol were given without diuresis. The patient was transferred to the University of Iowa Hospitals June 1, 1969. On admission he was unresponsive with a blood pressure of 120/80 and pulse of 140/min. Multiple skin petechiae were noted over his trunk and in his conjunctiva. His pupils were equal and reactive. Respiration was maintained with a Bird respirator connected to a nasotracheal tube. A tracheostomy was performed and the patient was hemodialyzed but this was to no avail. Supportive care and antibiotic therapy were instituted.

On June 3 the pupils became dilated and fixed. EEG showed no cerebral electrical activity. General condition remained the same and the following day the EEG was again isoelectric. The respirator was discontinued and the patient was pronounced dead June 4, 1969 at 10:11 a.m.

At autopsy, the non-central nervous system findings consisted of bilateral, severe pulmonary edema and hemorrhagic pneumonia with a right hydrothorax. There was focal peritonitis, fat necrosis of the omentum and tail of the pancreas, necrosis of the left adrenal secondary to thrombosis of the major vein, complete thrombosis of the left renal vein and artery with extensive recent infarction of the left kidney, and acute tubular necrosis of the right kidney.

Large amounts of fat were demonstrated microscopically in the pulmonary capillaries and a small amount in the right kidney. None could be demonstrated in the massively infarcted left kidney.

The brain showed the classical findings of the "respirator brain" syndrome *(coma dépassé)*.[32] In addition to the typical "respirator" changes, consisting of severe edema, uniform

Both authors are faculty members at the U. of I. College of Medicine. Dr. Acosta-Rua is in the Division of Neurosurgery, and Dr. McCormick is in the Division of Neuropathology.

Figure 1. Coronal section of cerebral hemisphere through genu of corpus callosum to show large numbers of petechiae in cerebral centrum, maximal in the corpus callosum.

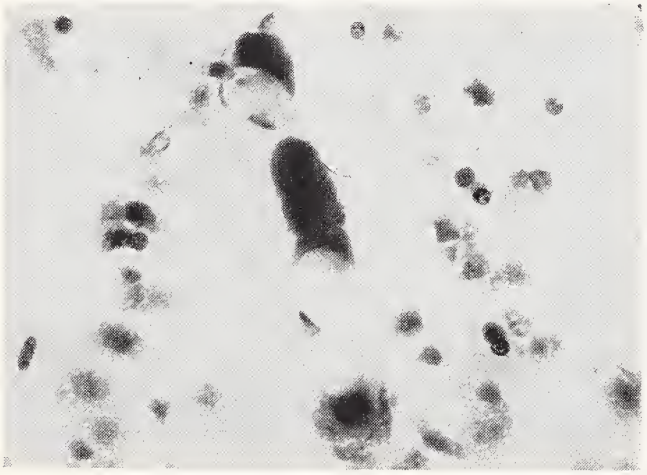

Figure 2. Fat stained cerebral cortex illustrating plugging of capillary by sudanophilic fat particles (frozen section, Oil red 0 stain; 500 X).

softening and brownish-gray discoloration, large numbers of petechiae were present in the cerebral centrum, involving maximally white matter but also involving the nuclear components of the striatum (Figure 1). On microscopic examination, these petechiae were seen to represent ring and ball hemorrhages. Associated with these in many areas, the small vessels were seen to be totally occluded by fat emboli (Figure 2). Small, discrete areas of marked pallor and fine fenestation indicative of early infarction were also encountered in many areas.

The pituitary revealed petechiae in the posterior lobe, small foci of acute infarction of the anterior lobe and moderate karyopyknotic-desquamative changes typical of the respirator effect.[35]

Case No. 2

A 74-year-old white male mental hospital patient was admitted to a local hospital on June 2, 1969, complaining of pain in the right hip of 3 days duration. Roentgenograms revealed a fracture of the right hip.

The patient was transferred the same day to the University of Iowa Hospitals and was nonresponsive on admission. Blood pressure was 130/60 and the pulse was 100. The positive findings in the general physical examination revealed an increased AP diameter of the chest with scattered rales and rhonchi. The abdomen was tense and distended and no bowel sounds could be heard. Multiple petechiae were noted over the thorax and in the axillary regions. There was slight external rotation of the right hip. The patient expired while being examined for admission.

At autopsy, the non-central nervous system findings were a subcapital femoral neck fracture on the right, bilateral bronchopneumonia, diffuse arterial and arteriolar sclerosis. Microscopic examination of the lungs and kidneys revealed numerous fat emboli, most plentiful in the lungs (Figure 3).

In the central nervous system, petechiae, singularly and in clusters, were encountered. These were most striking in the right parietal lobe (Figure 4). The remainder of the gross examination of the brain was not remarkable, except for diffuse, moderately severe atherosclerosis of the vertebral-basilar system and an 8 mm. xanthoma in the choroid glomus in the left lateral ventricle.

Figure 3. Photomicrograph of lung from Case 2 showing many alveolar capillaries stuffed with fat (frozen section; Oil red 0 stain; 200 X).

Figure 4. Coronal section of right parietal lobe showing clusters of petechiae in the convolutional white matter.

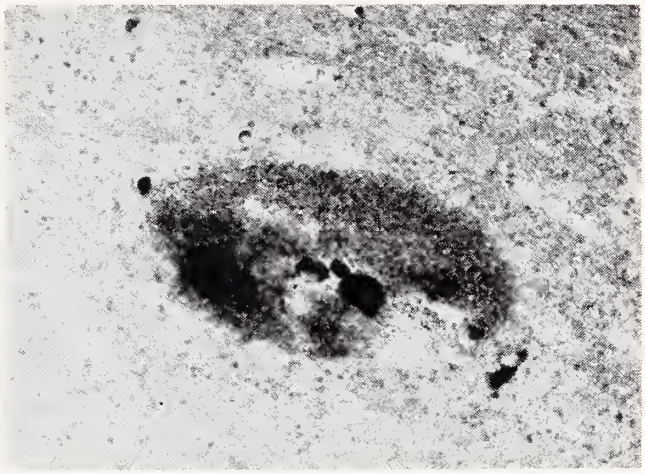

Figure 5. Frozen section of brain illustrating ring hemorrhage about vessels occluded with fat droplets (frozen section; Oil red 0 stain; 50 X).

Microscopically, the petechiae were seen to be secondary to fat embolization, with readily demonstrable fat plugging small vessels (Figure 5). Ball and ring hemorrhages and small punctate areas of marked pallor and early encephalomalacia were also present.

HISTORY

Probably the first report of fat emboli (FE) was an experiment reported from the University of Lisbon in 1644.[8, 46] At that time Portuguese scientists noted that few dogs survived an intravenous injection of milk and cream. The first clinical description in man has been attributed to Zenker, who described a case in 1862.[60] Further investigations were reported in 1873 by von Bergmann,[5] while Fenger and Salisbury[18] made the first clinical diagnosis of FE in the United States in 1879. Scriba[14] reported fat droplets in the urine of patients with fractures in 1880. Six years later Bush[8] demonstrated fat droplets in lung capillaries following the introduction of a coagulating wire loop into the marrow of rabbit's femurs. In 1894, Ribbert[8] produced FE in rabbits by tapping the hind limbs so as to produce soft tissue trauma without fracture.

In 1911, Benestad and Grondahl separately reported the important clinical sign of multiple petechiae in the skin of patients with FE[14] and the appearance of fat droplets in the sputum was documented by Warthin in 1913.[58] Since then, an extensive bibliography has accumulated on this subject.

INCIDENCE

Peltier[44] pointed out that an increased incidence can be expected when there is an increased awareness, understanding and interest in the syndrome. FE is most common in the second and third decades of life, when long-bone fractures are frequent, and in the sixth and seventh decades, when fractures of the hip are frequent.[17] FE is rarely reported in children. Cardin, *et al*[10] were able to find only 10 cases in the literature of the last 45 years. While uncommon, FE can occur in the very young, and Ryerson has reported a case in an 8 month old child.[48] One reason given for the absence in childhood is that child fat contains less proportion of olein than that of adults.

The frequency of FE in males is eight times greater than in females,[16] probably due to the greater frequency of severe trauma in males. Fuchsig, *et al*,[19] reported 289 cases of fatal injuries and found FE in 16.3 per cent at autopsy. Buerger,[8] however, found pulmonary FE in 99 and renal FE in 78 of 100 consecutive autopsies in patients with serious bone trauma. Sevitt[52] reported pulmonary FE in 89 per cent of post-traumatic deaths and more disseminated systemic emboli in 24 per cent. Scully[50] found a similar prevalence in fatal Korean War casualties.

ETIOLOGY

FE has been described in a variety of both traumatic and nontraumatic illnesses, but most authorities agree that clinically significant FE is seen as a result of severe injury to soft tissues and bone, particularly with fractures of the shafts of the long bones.[6, 13] Apparently, conditions such as shock, severe illness and toxemia also have an influence on the level of blood fat,[4, 16] and although FE is generally a

consequence of injury, trauma is not a *sine qua non* of this complication. It has been observed in severe burns, in intoxication with a number of agents such as phosphorus, sodium hydroxide, ammonium hydroxide, carbon tetrachloride and ether, and in pneumonia, osteomyelitis, gas bacillus infections, eclampsia and metabolic disease.[12] The increased hazard of FE in the alcoholic has been recognized by several authors,[31, 49] but Kimble[31] concluded that although it is very common in alcoholics, it is rarely the sole cause of death.

Jackson and Greendyke[28] reported 57 consecutive autopsies of patients known to have received external cardiac massage during their terminal episode (only patients dying from natural disease processes, without antecedent of trauma or skeletal fractures, were included in the study) and found pulmonary FE in 46 of the 57 patients. Only 4 of 16 had significant numbers of cerebral FE.

Lipid embolism to the brain following lymphography has been also reported.[39]

Several authors[43, 51] observed the presence of systemic FE in patients who died following cardiopulmonary bypass. Owens and his associates[43] also demonstrated similar findings in dogs subjected to prolonged perfusion. Wright, *et al*[59] proposed that FE during cardiopulmonary bypass may be minimized by the addition of a nonionic detergent to the blood or by interposition of a membrane between blood and gas in the oxygenator.

The relation of hemoglobin S-C Disease with FE has been well described by Ober.[42] In 1961, Hill[27] reported the first case of FE as a complication of hypercortisonism in man. Jones, *et al*[29] reported a case of systemic FE after renal homotransplantation and treatment with corticosteroids. They found that increasing levels of serum triglycerides and clinical manifestations of systemic FE accompanied a cessation or rapid reduction in corticosteroid administration. They suggested that the most likely source of embolic fat was the corticoid-induced fatty liver.

Lehman and Moore[33] stated in 1927 that ether vapor in the blood stream produced FE in the presence of post-absorptive lipemia but Davies, *et al*[15] demonstrated that neither the presence of a post prandial lipemia nor the administration of ether anesthesia, or both, produced significant degrees of FE in dogs. Cale, *et al*[9] also concluded that anesthesia *per se* plays an insignificant role in the pathogenesis of FE, and considered that the type of anesthesia was unimportant in the management of FE phenomena. Murray,[37] working with rabbits and dogs, found evidence that there is a "fat center" in the hypothalamus which, under certain conditions (shock, severe toxemia, severe illness, etc.), has an influence on the level of blood fat.

FE has also been reported as a complication in rapid decompression from atmospheric pressure[34] and in association with blood transfusions.[22]

CLINICAL MANIFESTATIONS

Fulminating, rapidly fatal cases are usually associated with severe multiple injuries and are rarely diagnosed clinically. Many mild cases also occur and are frequently overlooked.[17, 40] The characteristic clinical picture develops from 3 to 72 hours following injury, with about 60 per cent of the patients developing the symptoms within the first 24 hours.[22, 24] There is a "symptom-free-interval" during which the patient's general condition is good except for the initial injury. The shortest "free-interval" reported has been 30 minutes and the longest 9 days.[44]

Pulmonary symptoms generally appear first. These symptoms consist of dyspnea, cyanosis and tachypnea with an accompanying cough. Diffuse rhonchi and rales are present and occasionally a pleural friction rub is heard. Other clinical signs are elevation of temperature to 102 to 103°F, tachycardia with a pulse rate of 140 beats per minute or higher, and a fall in the blood pressure with a raise in the venous pressure.

Symptoms secondary to systemic embolism usually appear after the pulmonary syndrome. Although many organs are involved, cerebral symptoms predominate in the clinical syndrome of systemic embolism. Neurological symptoms consist of increased restlessness (at times associated with manic behaviour)[55] delirium, stupor, coma, and occasional extensor posturing and decerebrate rigidity.

Petechial hemorrhages are one of the classic physical findings. They appear in crops at any time during the first week after injury and are frequently localized in the axillary region, across the chest, at the base of the neck and

down the flanks into the thighs. Subconjunctival and submucous petechiae are also occasionally seen.[20] The rash is present for only a short period and fades rapidly. Only about 20 per cent of the patients will exhibit petechia. Garner[20] attempted, with fair results, to increase this number by provoking petechiae by the application of a petechiometer.

LABORATORY STUDIES

Sputum: Oil stains of the sputum for neutral fat globules were considered a very important laboratory aid until Musselman, *et al*[38] found sputum positive for fat in 80 per cent of patients without FE, and Nuessle[41] concluded that "fat is a normal constituent of sputum."

Radiographic examination: Radiographic examination of the lungs may reveal diffuse scattered densities. These resemble the radiographic picture of pulmonary edema but without the vascular engorgement. The perihilar and basilar areas are most often involved.[12] Berrigan, *et al*[6] concluded that the diagnosis of FE frequently can be first suggested by the radiologist when confronted with a rather typical chest roentgenogram in a patient who has recently sustained fracture of one or more long bones.

Hemoglobin: An unexplained sudden sharp drop in the hemoglobin value was first noted by Kortschoner and Sophian.[44] The value of hemoglobin may drop as much as 4 to 5 gms. within 12 hours without external evidence of bleeding. The major source of this sudden decrease in hemoglobin probably is hemorrhage into pulmonary parenchyma.[26]

Serum lipase levels: Serum lipase determination is of diagnostic and prognostic value in some patients with FE. Ordinarily, elevation of the serum lipase occur 3 to 4 days after injury and reach their maximum 7 to 8 days following injury. Peltier[45] considered that the determination of the serum lipase is one of the best diagnostic laboratory tests to be used between the third and seventh day after injury.

Urine fat: The significance of fat in the urine is undoubted, since in the great majority of the severe traumatized patients, catheterization is an early routine procedure and the use of lubricants can invalidate the results of this test. Some authors consider it very important in the first days after injury[44] while Musselman, *et al*[38] demonstrated fat globules in the urine in 12 per cent of 50 patients hospitalized for nontraumatic illnesses. The validity of the urine examination for fat globules is probably unsolved, though it is generally felt to be more reliable than the sputum test.[14] Adler, *et al*[1] described a simple microscopic method for the detection of fat in the urine using Sudan III and a macroscopic method using Nile blue sulfate.

Serum fat: Scuderi[49] felt that darkfield examination of circulating blood for fat globules would be most helpful in the diagnosis of FE. Some authors[21, 48] are of the opinion that the size of the fat globules is of much greater importance than the quantity of fat in the circulation.[7, 30]

EEG: The feature common to all the EEGs in the early stage of cerebral FE is a marked over-all slowing, with delta and theta activity at all points. The normal alpha rhythm is absent.[36, 54] The specificity of these changes for cerebral FE has not been proven.

EKG: Changes in the EKG may not be present immediately and are most common 24 to 48 hours after injury.[56] This change varies from tachycardia to a weak potential to inversion of T-wave.[16]

Cerebrospinal fluid: The spinal fluid pressure is normal and some authors stated that it does not contain fat droplets.[2, 48] Cross[14] however, demonstrated fat globules in the CSF of a case of traumatic systemic FE and emphasized that CSF examination for neutral fat has been neglected as a diagnostic technique.

Biopsy: A skin biopsy of a petechia will reveal the presence of intravascular fat and a needle biopsy of the kidney may show glomerular infiltration with fat.

DIFFERENTIAL DIAGNOSIS

When head injury occurs simultaneously, the differential diagnosis of cerebral FE becomes more difficult. Commotio cerebri, epidural or subdural hematomas must also be considered. Müller and Klingler[36] considered that EEG might be an aid to the differential diagnosis of an acute intracranial hematoma. If the possible association of cerebral FE and post-traumatic expanding process is suspected, a cerebral angiogram in only the A-P projection has been advised.[47] As FE and epidural hemorrhage can coexist, trephination should be carried out in case of doubt.[48] Other differential

diagnoses are shock, pulmonary embolism secondary to thrombophlebitis, bronchopneumonia, delirium tremens, septicemia, diabetes mellitus, drug poisoning, allergic reaction, air embolism, psychosis, and, in general, almost any cause of coma.[16]

PROGNOSIS

The prognosis of FE is particularly affected by the presence and severity of cerebral symptoms. The mortality of patients in coma is relatively high, whereas it is low in those with mild cerebral effects or without cerebral symptoms.[52] The cited range of mortality varies from 1 to 20 per cent; the systemic form being higher than the pulmonary.[16]

TREATMENT

There are several treatments suggested for handling patients with FE. Prophylaxis should be considered first. The patient must be handled very carefully; fractures should be splinted and unnecessary manipulation or transportation of the patient should be avoided and general supportive measures, as maintenance of airway, parenteral administration of fluids and control of the shock, should be employed.

The best treatment for the neurologic disturbances accompanying FE is effective oxygenation of the arterial blood.[45] Tracheostomy is sometimes necessary to maintain a good oxygenation and to assure a constant tracheobronchial toilet. Rapid digitalization would be utilized in case of incipient cardiac failure.

The use of heparin is controversial. Cobb, *et al*[11] concluded from experimental studies that the only agent which appeared to accelerate the mobilization of emboli was heparin. They seem to agree with Shoulders, *et al*[53] who noted more rapid metabolism of nutrient intravenous fat emulsion in heparinized individuals. Peltier,[44] however, considered heparin to be of little value in the treatment of FE. As acute peptic ulceration[57] and haematemesis[25] have been found associated with FE (even in cases not treated with heparin), these complications may be a valid argument against the use of heparin.

Ethyl alcohol, on the rational basis that it is a lipase inhibitor, has an emulsifying effect *in vivo*, and has a dilatatory effect on pulmonary capillaries, has been recommended in doses of 30 cc. of 100 proof whiskey by mouth or 2000 to 3000 cc. of 5 per cent alcohol in 5 per cent dextrose in water daily intravenously.

Hypothermia in combination with dehydrating agents[23] or in combination with lytic cocktail[3] has been reported as an aid in the management of some patients.

The efficacy of Dextran 40® remains in question. Evarts[17] believes that intravascular administration of 500 ml. of Dextran 40® every 12 hours, reduces intravascular aggregation of red blood cells, increases the fluidity of blood, improves capillary flow, increases tissue perfusion and exerts a siliconizing effect on injured walls of blood vessels.

SUMMARY

A review of the English language literature in FE has been discussed and two fatal illustrative cases presented. In spite of modern laboratory techniques and medical treatment, FE continues to be a challenge to physicians dealing with surgery of trauma.

The consideration of FE should always be entertained as a differential diagnosis in patients who have sustained long bone fractures simultaneously with head injuries.

The history, elevation of the serum lipase and the appearance of petechial hemorrhages are probably the most important factors to establish the diagnosis of FE.

Until the present, there is no universally accepted treatment as proven by the multiplicity of techniques used in the handling of these patients.

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Giant Jejunal Diverticulosis:

A Rare Cause of Massive Upper Gastro-intestinal Hemorrhage

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THE CORRECT MANAGEMENT of gastro-intestinal hemorrhage continues to be a challenging problem, fully taxing the ability and judgment of the surgeon or physician. From massive hematemesis requiring rapid and decisive action to intermittent melena requiring the most careful application and interpretation of sophisticated diagnostic examinations, gastro-intestinal hemorrhage exists as a most perplexing entity. If the patient presents with hematemesis, one may assume the source of bleeding is probably proximal to the ligament of Treitz. If, however, the presenting symptom is melena, the source of bleeding covers a considerably larger area.

The majority of causes of upper G.I. tract bleeding will be one of the following: *1) Peptic ulcer disease, 2) Hemorrhagic gastritis, 3) Bleeding esophageal varices, or 4) Gastric neoplasms.* Other causes, though rare in occurrence, are numerous in variety.

CASE REPORT

The following case report deals with one of the more unusual and often unrecognized causes of upper gastro-intestinal bleeding:

A 69-year-old white housewife was admitted to Winneshiek County Memorial Hospital on March 21, 1969. Her history consisted of melena of 24 hours duration associated with weakness and dizziness. There was no past or present history of peptic ulcer disease, bleeding tendencies, drug or alcoholic ingestion. She was asymptomatic except for her dizziness and weakness. General physical examination was unremarkable except for her pallor. There were no abnormal abdominal findings. Rectal examination confirmed the presence of melena on the tip of the gloved finger. A nasogastric tube was inserted, but this did not return any blood or coffee ground material. Intravenous fluids were started and after several hours the nasogastric tube was removed, and she was started on active ulcer management orally.

Her hemoglobin on admission was 8.3 gm. Over the first 24 hours her blood pressure, pulse rate and urinary output remained satisfactory. During this period she slowly received 1500 cc. of whole blood. However, after about 30 hours her pulse rate began to increase, and she soon passed three large black stools in quick succession; the last specimen contained some red blood. Her hemoglobin level at this time had fallen to 7.4 gm. in spite of her 1500 cc. blood transfusion. It became obvious that surgical intervention was necessary and she was taken to the operating room within 30 minutes of this decision, with whole blood running actively. Her blood pressure was beginning to fall at this time and clinical signs of hypovolemic shock were rapidly developing.

A right paramedian incision was present from a previous cholecystectomy, thus the patient's peritoneal cavity was opened through a generous left upper paramedian incision. The stomach did not contain any blood, and the region of the proximal duodenum was obscured by rather dense adhesions from the previous gall bladder surgery. Exploration of the rest of the gastro-intestinal tract showed (1) the entire small bowel and colon from a point ap-

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proximately 18 inches distal to the ligament of Treitz to be filled with large amounts of blood, and (2) numerous giant blood-filled diverticula to be present on the mesenteric side of the upper jejunum. These diverticula were present in a 25 inch segment of bowel which started about 18 inches from the ligament of Treitz. No other diverticula were present distal to this point.

Inasmuch as a bleeding duodenal ulcer is still the most common cause of upper G.I. bleeding, this had to be excluded before the bleeding could be attributed to giant jejunal diverticula. The previously mentioned post cholecystectomy, duodenal adhesions were dissected and the proximal duodenum was opened. It contained clear bile without any evidence of blood or ulcer disease. The duodenotomy was closed, and then the involved segment of upper jejunum resected. The patient's condition throughout the procedure was rather poor, and in spite of receiving 2000 cc. of blood during the 90 minute operation she was hypotensive throughout, and for a period of 10 minutes she had no recordable blood pressure. Bleeding promptly stopped after the operation, and in slow recovery she experienced acute left ventricular heart failure with pulmonary edema precipitated by a myocardial infarction eight hours postoperatively. She later developed pneumonia and then exhibited enough clinical and radiological evidence of pulmonary embolism and infarction to warrant active anticoagulation. She was discharged from the hospital three-and-one-half weeks after her operation and has been free of any gastro-intestinal symptoms since.

Pathological examination of the specimen showed 17 thin-walled diverticula on the mesenteric side of a segment of jejunum measuring 60 cm. in length. The specimen was filled with liquid and clotted blood. The diverticula measured from 5 to 30 mm. in transverse diameter and the mouth of each diverticulum was approximately half as wide as the transverse diameter. No one definite point of hemorrhage was identified by the pathologist although he did note histological evidence of acute diverticulitis in at least one diverticulum.

DISCUSSION

Jejunal diverticulosis is an uncommon condition. It may cause a variety of surgical complications and disease syndromes of which massive upper gastro-intestinal hemorrhage is one of the least common. Rosendale and Lawrence[1] found the incidence of jejunal diverticulosis to be only 0.06 per cent in 5,000 routine autopsies. Surgical complications secondary to jejunal diverticula occurred in 10.4 per cent of 87 clinically diagnosed cases studied by Baskin and Mayo[2] over a 9 year period at the Mayo Clinic. These complications consisted of obstruction, diverticulitis, perforation, foreign body incarceration and hemorrhage. Dyspepsia and vague abdominal discomfort have been attributed to these lesions with disappearance of symptoms following surgical removal.[3] A macrocytic anemia with steatorrhea associated with jejunal diverticulosis has been described in recent years.[4]

TABLE I

CAUSES OF UPPER GASTRO-INTESTINAL BLEEDING

Inflammatory lesions:	Biliary tract
Peptic ulcer disease	Polyps
Gastritis	Single
Esophagitis	Multiple
Drug induced	Peutz-Jeghers Syndrome
Pancreatitis	Leiomyoma, leiomyosarcoma
Acute hemorrhagic	Carcinoid
Traumatic	Sarcoma
Diverticula	Mechnical lesions:
Vascular lesions:	Hiatus hernia
Esophageal varices	Foreign body ingestion
Aneurysm	Mallory-Weiss Syndrome
Aortic-enteric	Prolapsing of gastric mucosa
Spleno-enteric	Hematobilia
Hemangioma	Hypersplenism
Rendu-Osler-Weber Disease	Systemic conditions:
Neoplasms:	Blood dyscrasia
Carcinoma	Collagen diseases
Esophagus	Periarteritis
Stomach	Scleroderma
Duodenum	Amyloidosis
Proximal small bowel	Sarcoidosis
Pancreas	

The first description of jejunal diverticula was by Astley Cooper in 1807, while the first case of bleeding from these diverticula was reported by Braithwaite[5] in 1923. In 1967 Thomas[6] reviewed the American and British literature and reported that a total of 41 cases had been described in which massive upper gastro-intestinal bleeding was due to jejunal diverticulosis. An additional case was reported by Taylor[7] in 1969. The majority of the cases

Figure 1. Resected specimen of proximal jejunum exhibiting multiple giant-size diverticula.

were male ranging from 40 to 83 years of age with a peak incidence in the seventh decade. Of the 41 cases reported by Thomas, 26 patients required surgical intervention for survival, and death from exsanguination occurred in 4 of the 26 patients.

In many of the reported cases the exact site of bleeding from the diverticula was not noted, but in those cases in which the source of the bleeding was histologically verified, diverticulitis or ulceration were present. Inflammatory diverticulitis and hyperperistalsis due to the presence of blood accounts for the abdominal discomfort which is present in many of these patients.

PATHOLOGY

There are two types of diverticula of the small intestine: congenital and acquired. The former are located on the antimesenteric margin of the intestine and are true diverticula in that they consist of all coats of the intestinal wall. When found, they are often solitary; Meckel's Diverticulum is an example. On the other hand, acquired diverticula occur on the mesenteric side of the bowel and are false diverticula in that they consist only of mucosa, submucosa and peritoneum, and lack the muscular wall of the intestine. It has been convincingly demonstrated[3] that these are pulsion herniations of intestinal mucosa along the course of entering blood vessels. These are represented by the false diverticula which are so frequently encountered in the colon. Increased intraluminal pressure within that segment of bowel is the probable precipitating factor. The majority of jejunal diverticula are of the acquired type and are found on the mesenteric border of the bowel. When multiple jejunal diverticula are found, it is interesting to note that they are usually confined to a comparatively short segment of bowel and that this segment usually consists of the proximal jejunum.[8]

As previously mentioned Rosendale and Lawrence[1] found the incidence of jejunal diverticulosis to be 0.06 per cent in 5,000 routine autopsies. However, in the next consecutive 300 necropsies they made a special search for such diverticula by distending the jejunum with air. By this method, they increased their discovery rate to 1.3 per cent. This is of important clinical significance to the surgeon trying to locate the source of occult or active bleeding at the operating table, and it might also be of help to the pathologist in the autopsy room when he is trying to locate the source of bleeding in the case of a fatal gastro-intestinal hemorrhage.

Bleeding from jejunal diverticulosis, which presents as melena or as bright red rectal bleeding in the case of massive hemorrhage, has been confused with bleeding from a peptic ulcer and sigmoid diverticulosis, and unnecessary or inappropriate operations have been performed because of this error. Baskin[2] and Verger[8] have each reported such cases in which a proximal colostomy was performed for presumed bleeding sigmoid diverticulosis when the actual site of bleeding was in the overlooked or unappreciated jejunal diverticulosis.

SUMMARY

Jejunal diverticulosis, which is a rare disease, has often been overlooked as one of the less common causes of occult or massive upper gastro-intestinal hemorrhage. The source

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April 25 to 28

Hotel Fort Des Moines

IOWA MEDICAL SOCIETY

ims

A high point each year for the state's medical profession is the Annual Meeting of the Iowa Medical Society; 1971 is no different. The 1971 Program Committee has done a superlative job. The program is diversified, timely and abounds with competent speakers.

It is my sincere hope Iowa physicians (1) will attend the scientific and socio-economic sessions in large numbers, (2) will visit all of the worthwhile exhibits, and (3) will benefit significantly from the total experience.

JOHN H. SUNDERBRUCH, M.D., *President*

1971 PROGRAM COMMITTEE

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C. R. ASCHOFF, M.D.

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J. F. BISHOP, M.D.

Y. A. INANKUR, M.D.

GENERAL SESSIONS

HOTEL FORT DES MOINES
STATE ROOM—MEZZANINE

MONDAY, APRIL 26, 1971

8:00 A.M.—EXHIBITS/EARLY BIRD BREAKFAST

8:15 A.M.—SPECIAL FILM SHOWING

8:55 A.M.—INVOCATION
REVEREND VINCENT MORRISSEY
ST. MARY'S CHURCH
DAVENPORT, IOWA

9:00 A.M.—PRESIDENT'S ADDRESS
JOHN H. SUNDERBRUCH, M.D.
PRESIDENT, IOWA MEDICAL SOCIETY
DAVENPORT, IOWA

9:30 A.M.—TRANSPLANTATION IN IOWA: A CHALLENGE FOR TODAY

WM. W. BONNEY, M.D.

Dr. Bonney is an Assistant Professor of Urology at The University of Iowa College of Medicine. He is Coordinator of the Kidney Transplant Team and Chief of the Urology Service at the Veterans Administration Hospital. Seventeen kidney transplants have been performed in Iowa City since November 1969 when the U. of I.-Veterans Administration Hospital began its program of human renal transplantation.

10:00 A.M.—RECESS TO VISIT EXHIBITS

10:45 A.M.—IS THE MISCHIEF IN THE DRUGS OR IN PEOPLE?

D. A. TREFFERT, M.D.

Dr. Treffert is Superintendent of the Winnebago State Hospital in Winnebago, Wisconsin. A Diplomate of the American Board of Psychiatry, Dr. Treffert is Chairman of the Division of Drug Addiction and Alcoholism, State Medical Society of Wisconsin. He also serves as a member of the Governor's Dangerous Substance Control Council in Wisconsin.

11:15 A.M.—WAS IT SUICIDE?

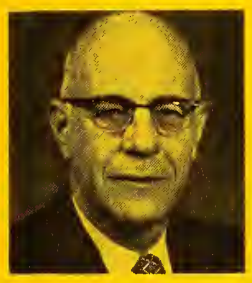
EARL F. ROSE, M.D., LL.B.

Dr. Rose is an Associate Professor of Pathology at The University of Iowa College of Medicine. He is a Fellow of the American Academy of Forensic Science, the College of American Pathologists and the American Society of Clinical Pathology. He is also a Diplomate of the American Board of Pathology (Anatomic, Clinical, Forensic).

11:45 A.M.—RECESS TO VISIT EXHIBITS

12:00 NOON—TECHNOLOGY & OUR ENVIRONMENT

A Luncheon Program



ELMER P. WHEELER

Mr. Wheeler is Manager of Environmental Health for the Monsanto Company in St. Louis, Missouri. He is a Past President of the American Industrial Hygiene Association and a member of the Air Quality Committee of the Manufacturing Chemists Association. He is a Fellow of the American Association for the Advancement of Science.

MONDAY AFTERNOON SEMINARS

Nine Special Seminars will be presented in three 45-minute time periods Monday afternoon. In addition, four Demonstrations and Self-Assessment Quizzes will run continuously and concurrently during the afternoon. The afternoon schedule is as follows:

2:00 P.M. to 2:45 P.M.

PHENYLKETONURIA—ROOM 321-322
CHARLES F. JOHNSON, M.D.
Iowa City, Iowa

CURRENT THOUGHTS ON EVALUATION & MANAGEMENT OF HODGKIN'S DISEASE—ROOM 325-326
A. CURTIS HASS, M.D.
Iowa City, Iowa

DRUG USE—A HISTORICAL PERSPECTIVE—ROOM 317-318
SIDNEY L. SANDS, M.D.
Des Moines, Iowa

See Page 4 for Picture/Sketches of Seminar Participants

2:45 P.M. to 3:30 P.M.

HERNIA PROBLEMS IN INFANTS & CHILDREN—ROOM 321-322
ROBERT T. SOPER, M.D.
Iowa City, Iowa

SKIN CANCER: TREATMENT METHODS—ROOM 325-326
JOHN G. THOMSEN, M.D.
Des Moines, Iowa

MANAGING THE DRUG ABUSER & HIS FAMILY—ROOM 317-318
DAROLD A. TREFFERT, M.D.
Winnebago, Wisconsin

3:30 P.M.—RECESS TO VISIT EXHIBITS

4:15 P.M. to 5:00 P.M.

USE OF DRUG THERAPY IN LEARNING PROBLEMS—ROOM 321-322
GERALD SOLOMONS, M.D.
Iowa City, Iowa

RAPID INTENSIVE RADIATION THERAPY FOR INOPERABLE BRONCHOGENIC CARCINOMA—ROOM 325-326
LOUIS L. MAHER, M.D.
Des Moines, Iowa

DRUG ABUSE IN IOWA TODAY—ROOM 317-318
ROBERT M. BITTLE, M.D.
Iowa City, Iowa

2:00 P.M. to 5:00 P.M.

The following Demonstrations & Self-Assessment Quizzes will run continuously and concurrently in the Drake Room.

CARDIO/PULMONARY RESUSCITATION—USE OF OFFICE EQUIPMENT IN EVALUATING PULMONARY FUNCTIONS
JOHN L. HOYT, M.D.
Iowa City, Iowa

DERMATOLOGY UNIT
RICHARD M. CAPLAN, M.D.
Iowa City, Iowa

EKG UNIT
DAVID HOLMSTEN, M.D.
Iowa City, Iowa

RADIOLOGICAL DIFFERENTIATION OF THE CAUSE OF MELENA
KENNETH D. DOLAN, M.D.
Iowa City, Iowa

MONDAY AFTERNOON SEMINAR PARTICIPANTS

DR. JOHNSON

DR. HASS

DR. SANDS

DR. SOPER

DR. THOMSEN

DR. SOLOMONS

DR. MAHER

DR. BITTLE

DR. HOYT

DR. CAPLAN

DR. HOLMSTEN

DR. DOLAN

CHARLES F. JOHNSON, M.D., Assistant Professor of Pediatrics & Assistant Director, Child Development Clinic, U. of I. College of Medicine; Fellow, American Academy of Pediatrics and American Association on Mental Deficiency; Diplomate, American Board of Pediatrics. **A. CURTIS HASS, M.D.,** Assistant Professor of Radiology, U. of I. College of Medicine; Diplomate, American Board of Radiology. **SIDNEY L. SANDS, M.D.,** Director, Psychiatric Services and Medical Education, Broadlawns Polk County Hospital; Clinical Professor of Psychiatry and Assistant Dean for Medical Education for Broadlawns Hospital, U. of I. College of Medicine; Diplomate, American Board of Psychiatry. **ROBERT T. SOPER, M.D.,** Professor of Surgery, U. of I. College of Medicine; Founding Member, American Pediatric Surgical Association; Diplomate, American Board of Surgery. **JOHN G. THOMSEN, M.D.,** Private Practitioner; Fellow, American Academy of Dermatology; Diplomate, American Board of Dermatology. **GERALD SOLOMONS, M.D.,** Professor of Pediatrics & Director, Child Development Clinic, U. of I. College of Medicine; Diplomate, American Board of Pediatrics. **LOUIS L. MAHER, M.D.,** Private Practitioner; Diplomate, American Board of Radiology. **ROBERT M. BITTLE, M.D.,** Assistant Professor of Psychiatry, U. of I. College of Medicine. **JOHN L. HOYT, M.D.,** Assistant Professor of Anesthesiology, U. of I. College of Medicine. **RICHARD M. CAPLAN, M.D.,** Professor of Dermatology & Assistant Dean for Continuing Medical Education, U. of I. College of Medicine; Diplomate, American Board of Dermatology. **DAVID HOLMSTEN, M.D.,** Instructor, Department of Internal Medicine, Section of Adult Cardiology, U. of I. College of Medicine. **KENNETH D. DOLAN, M.D.,** Associate Professor of Radiology, U. of I. College of Medicine; Diplomate, American Board of Radiology. **DAROLD A. TREFFERT, M.D.** For biography and picture, please see Page 2.

ELECTIVE CREDIT

Attendance at the 1971 Annual Meeting General Sessions is acceptable for seven hours of Elective Credit by the American Academy of General Practice.

AMERICAN ACADEMY OF GENERAL PRACTICE

EARLY-BIRD BREAKFASTS

Coffee & Rolls will be available from 8:00 A.M. to 9:00 A.M. Monday & Tuesday, April 26 & 27, in the North Room, Hotel Fort Des Moines.

COURTESY OF BLUE SHIELD

GENERAL SESSIONS

HOTEL FORT DES MOINES
STATE ROOM—MEZZANINE

TUESDAY, APRIL 27, 1971

8:00 A.M.—EXHIBITS/EARLY BIRD BREAKFAST

8:15 A.M.—SPECIAL FILM SHOWING

9:00 A.M.—CURRENT TRENDS IN THE PRACTICE OF NUCLEAR MEDICINE

The Arthur Erskine Memorial Lecture

MERLE K. LOKEN, M.D.

Dr. Loken is from Minneapolis, Minnesota, where he is Professor of Radiology and Director of the Division of Nuclear Medicine at the University of Minnesota Medical School. Dr. Loken is a Fellow of the American College of Radiology and a Diplomate of the American Board of Radiology.

9:30 A.M.—MEDICAL MALPRACTICE

BURR B. MARKHAM, LL.B.

Mr. Markham is a trial attorney in Minneapolis, Minnesota, where he is associated with the law firm of Meagher, Geer, Markham and Anderson. Mr. Markham is a member of the American Bar Association and a Fellow of the American College of Trial Lawyers and the International Academy of Trial Lawyers.

10:00 A.M.—RECESS TO VISIT EXHIBITS

10:45 A.M.—QUALITY OF CARE AND QUALITY EDUCATION

The Baldridge-Beye Memorial Lecture
Scanlon Medical Foundation/Iowa Medical Society

ROBERT L. EVANS, M.D.

Dr. Evans is Vice President of Medical Affairs at York Hospital in York, Pennsylvania. He is Assistant Dean for Affiliation and Continuing Education, University of Maryland Medical School. He is a Board member of the Educational Council for Foreign Medical Graduates and Chairman, Continuing Education, Maryland Regional Medical Program. He is a Diplomate, American Board of Internal Medicine.

11:15 A.M.—THE FUTURE OF FAMILY PRACTICE IN IOWA

ROBERT E. RAKEL, M.D.

Dr. Rakel has just been appointed to head the new Family Practice Department of The University of Iowa College of Medicine. He has been Chairman of the Family Practice Program in the College of Medicine at the University of California (Irvine). Dr. Rakel is a Diplomate of the American Board of Family Practice.

11:45 A.M.—RECESS TO VISIT EXHIBITS

12:00 NOON—REFLECTIONS ON NATIONAL HEALTH INSURANCE

A Luncheon Program

THE HONORABLE JACK MILLER

United States Senator Jack Miller of Iowa is a member of the Senate Committees on Finance and Agriculture, the Joint Senate-House Economic Committee and the Special Senate Committee on Problems of the Aging. He is Assistant Minority Whip and Midwest Chairman, Senate Republican Campaign Committee.

PRESIDENT'S RECEPTION

TUESDAY, APRIL 27
6:00 P.M.

NORTH ROOM—
HOTEL FORT DES MOINES

This Reception Honors
JOHN H. SUNDERBRUCH, M.D.,
President of the Iowa Medical Society,
and Is Sponsored by Blue Shield

ANNUAL BANQUET

TUESDAY, APRIL 27
7:00 P.M.

GRAND BALLROOM—
HOTEL FORT DES MOINES

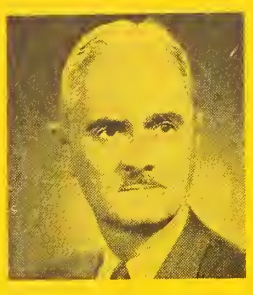
The 1971 Annual Banquet will include special entertainment as well as the Presentation of Awards to Distinguished IMS Members. Tickets will be sold at the Registration Desk.

TUESDAY AFTERNOON

2:00 P.M.—THE USE OF PARAMEDICAL PERSONNEL

A Panel Discussion

This important and current topic will be examined by six speakers. The panel will be moderated by Byron Merkel, M.D.



BYRON M. MERKEL, M.D.

Dr. Merkel is in the private practice of medicine in Des Moines. He is a Diplomate of the American Board of Otolaryngology and the American Board of Preventive Medicine, Aviation Medicine. He is Chairman of the Task Force on Medical Manpower of the Iowa Medical Society.

PEDIATRIC CLINICAL ASSOCIATES IN THE STATE SERVICES FOR CRIPPLED CHILDREN CLINICS

RONALD M. LAUER, M.D.

Dr. Lauer is a Professor of Pediatrics at The University of Iowa College of Medicine. He is Director of the College's Section of Pediatric Cardiology. Dr. Lauer is a Fellow of the American Academy of Pediatrics and a Diplomate of the American Board of Pediatrics.

SURVEY OF IOWA PHYSICIANS CONCERNING USE OF PHYSICIANS' ASSISTANTS

JOHN MACQUEEN, M.D.

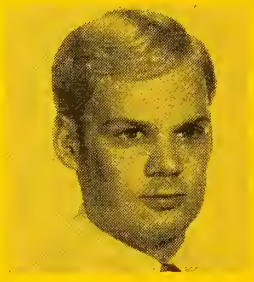
Dr. MacQueen is an Associate Dean at The University of Iowa College of Medicine. He serves on the Advisory Council to the State Comprehensive Health Planning Program. He is also a member of the Task Force on Medical Manpower and the Physician's Assistant Committee of the IMS. Dr. MacQueen is a Diplomate of the American Board of Pediatrics.

EXPERIENCES & ASSOCIATIONS WITH THE PHYSICIAN'S ASSISTANT

DAVID F. KAPP, M.D.

Dr. Kapp is in the private practice of internal medicine with Medical Associates in Dubuque, Iowa. He is a member of the Committee for Continuing Physician Education, Iowa Regional Medical Program. Dr. Kapp is a native of Pennsylvania and a graduate of the University of Michigan Medical School.

QUALIFICATIONS, TRAINING AND RESPONSIBILITIES OF THE ASSISTANT



T.D. ASCHENBRENER, P.A.

Mr. Aschenbrener is a Physician's Assistant on the faculty of the Health Clinic and In-Patient Rehabilitation Unit, Community Health Sciences, Duke University, Durham, North Carolina. He is a graduate of the Physician's Assistant Program at Duke and served an externship in Dubuque, Iowa.

QUALIFICATIONS, TRAINING AND RESPONSIBILITIES OF THE ASSISTANT

VERN GILLIS

Mr. Gillis is an orthopedic assistant with Medical Associates in Dubuque, Iowa. An Army veteran, Mr. Gillis served as a medical corpsman at the Seventh Field Hospital in Japan. Mr. Gillis is a graduate of the orthopedic assistant's training program at Kirkwood Community College in Cedar Rapids.

A LOOK AT PARAMEDICAL PERSONNEL

ROBERT L. EVANS, M.D.

Dr. Evans is Vice President of Medical Affairs at York Hospital in York, Pennsylvania. He is Assistant Dean for Affiliation and Continuing Education, University of Maryland Medical School. He is a Board member of the Educational Council for Foreign Medical Graduates and Chairman, Continuing Education, Maryland Regional Medical Program.

3:00 P.M.—RECESS TO VISIT EXHIBITS

3:45 P.M.—CONTINUATION & CONCLUSION OF PANEL/QUESTION & ANSWER SESSION

HOUSE OF DELEGATES

OPEN TO ALL MEMBERS

GRAND BALLROOM—
HOTEL FORT DES MOINES

FIRST MEETING—SUNDAY, APRIL 25
9:00 A.M.

ROLL CALL
APPROVAL OF MINUTES 1/24/71
REPORTS OF OFFICERS
COMMITTEE REPORTS
MEMORIALS AND COMMUNICATIONS
NEW BUSINESS

L. D. CARAWAY, M.D.
SPEAKER

H. L. SKINNER, M.D.
VICE SPEAKER

SECOND MEETING—
WEDNESDAY, APRIL 28
9:00 A.M.

ROLL CALL
READING OF MINUTES
ELECTION OF OFFICERS
UNFINISHED BUSINESS
NEW BUSINESS
ADJOURNMENT

PRESIDENTIAL INSTALLATION

WEDNESDAY, APRIL 28

GRAND BALLROOM—
HOTEL FORT DES MOINES

L. J. O'BRIEN, M.D., President-elect, will be installed as President of the Iowa Medical Society immediately following adjournment of the House of Delegates. Dr. O'Brien is in the private practice of surgery in Fort Dodge.

SPECIAL MEETINGS & DINNERS

- PAST PRESIDENTS' DINNER
  The Past Presidents' Dinner will be Saturday, April 24, at the Des Moines Club. A Social Hour at 6:30 p.m. will precede the Dinner.
- IMS GOLF TOURNAMENT
  The Annual IMS Golf Tournament will be Sunday afternoon, April 25, at Willow Creek Golf Course, 63rd and Army Post Road. Make reservations to play and arrange for golf carts in advance with the course manager. Tournament prizes will be awarded at an evening dinner. If there is insufficient interest, the event will be cancelled. Please file entries with Harold J. McCoy, M.D., 212 Bankers Trust Building, Des Moines.
- AMERICAN MEDICAL WOMEN'S ASSOCIATION (IOWA BRANCH 19)
  Members of the Iowa Branch should register at the IMS Registration Desk, Hotel Fort Des Moines. Meeting information will be available.
- IOWA ACADEMY OF SURGERY
  The Iowa Academy of Surgery will meet Monday, April 26, at the Des Moines Club as follows: Business Meeting—5 p.m.; Social Hour—6:30 p.m.; Dinner—7:30 p.m. Please reserve with Mrs. Sue Hyler, P.O. Box 114, Polk City, Iowa.
- IOWA ASSOCIATION OF PATHOLOGISTS
  The Iowa Association of Pathologists will meet Monday, April 26, as follows: Business Meeting —5 p.m., Room 340, Hotel Fort Des Moines; Social Hour (6:30 p.m.) and Dinner (7:30 p.m.) at the Des Moines Club. Please reserve with Alexander Ervanian, M.D., Iowa Methodist Hospital, Des Moines.
- IOWA CLINICAL SOCIETY, EXECUTIVE COUNCIL
  The Iowa Clinical Society, Executive Council, will meet Monday, April 26, as follows: Social Hour (6 p.m.) and Dinner (7 p.m.) at Eddie Webster's in West Des Moines. Please reserve with E. J. Hertko, M.D., 2932 Ingersoll Ave., Des Moines 50312.
- IOWA ORTHOPEDIC SOCIETY
  The Iowa Orthopedic Society will meet Monday, April 26, for a Social Hour (6 p.m.) and Dinner (7 p.m.) at the Des Moines Club. Please reserve with John Sinning, Jr., M.D., 1301 W. Lombard, Davenport 52804.
- IMS LEGISLATIVE CONTACT MEN
  The LCM's will host a reception for members of the Iowa General Assembly Monday, April 26, at 6 p.m., at the Hotel Savery.
- MEDICAL ALUMNI ASSOCIATION RECEPTION
  The University of Iowa Alumni Association in cooperation with The U. of I. College of Medicine will hold a reception for all Iowa physicians and their wives Monday, April 26, (9 p.m. to midnight) in the North Room of the Hotel Fort Des Moines.

TECHNICAL EXHIBITS

You are urged to visit the Annual Meeting Exhibits at the various scheduled times. The presence of these Exhibitors does much to assure a successful Meeting.

MONDAY & TUESDAY, APRIL 26 & 27
8:00 A.M. to 5:00 P.M.
MEZZANINE—HOTEL FORT DES MOINES

1971 EXHIBITORS

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West Point, Pennsylvania
MONARCH LIFE INSURANCE COMPANY
Des Moines, Iowa
PHYSICIANS & HOSPITALS SUPPLY COMPANY
Minneapolis, Minnesota
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Alleman, Iowa
THE PROUTY COMPANY
Des Moines, Iowa
WILLIAM H. RORER, INC.
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IOWA DIVISION, INC.
Mason City, Iowa
PITNEY-BOWES, INC.
Des Moines, Iowa
SANDOZ PHARMACEUTICALS
Hanover, New Jersey

MEDICAL ALUMNI RECEPTION

All Iowa physicians and their wives will be welcome at a reception from 9 p.m. to midnight, Monday, April 26, in the North Room of the Hotel Fort Des Moines. The event is sponsored by the U. of I. Alumni Association in cooperation with the College of Medicine.

LEGISLATIVE RECEPTION

Members of the Iowa General Assembly will be recognized by the IMS Committee on Legislation and the Legislative Contact Men at a Reception Monday, April 26, at 6 p.m., at the Hotel Savery.

PAST-PRESIDENTS' DINNER

The Past-Presidents of the Iowa Medical Society will be honored Saturday, April 24, at the Des Moines Club. A Social Hour at 6:30 p.m. will precede the Dinner.

SOCIETY AWARDS

Life Memberships in the Iowa Medical Society will be conferred and other Special Awards will be presented at the Society's Annual Banquet, 7 p.m., Tuesday, April 27, at the Hotel Fort Des Moines.

SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

The Board of Directors of the Scanlon Medical Foundation/Iowa Medical Society will hold its Annual Meeting at 4 p.m., Monday, April 26, at the Hotel Fort Des Moines.

(Continued from page 154)

of such bleeding will usually turn out to be one of the more common diseases; peptic ulceration, gastritis, neoplasm, esophageal varices, etc., but when these entities have been excluded, this uncommon disease should be borne in mind and searched for. A case report of massive upper G.I. hemorrhage is presented. The source of bleeding was in a segment of proximal jejunum which contained numerous giant diverticula with diverticulitis. The etiology, pathology and clinical manifestations and literature on this rare and interesting entity are discussed.

REFERENCES

1. Rosedale, R. S., and Lawrence, H. R.: Jejunal diverticulosis. Amer. J. Surg. **34**:369-373, 1936.
2. Baskin, R. H., Jr., and Mayo, C. W.: Jejunal diverticulosis: clinical study of 87 cases. S. Clin. North America, **32**: 1185-1196, 1952.
3. Edwards, H. C.: Diverticulosis of small intestine. Ann. Surg., **103**:230-254, 1936.
4. Blachford, R. D., and Dawson, D. W.: Association of jejunal diverticulosis with macrocytic anemia. Brit. Med. J., **1**:1407-1408, 1956.
5. Braithwaite, L. R.; Case of jejunal diverticula. Brit. J. Surg., **11**:184-188, 1923.
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8. Shackelford, R. T., and Marcus, W. T.: Jejunal diverticula: cause of gastrointestinal hemorrhage; report of three cases and review of literature. Ann. Surg., **151**:930-938, 1960.
9. Berger, E. H., Brunkow, C. W., and Smith, C. W.: Diverticulosis of jejunum with hemorrhage. Amer. J. Med., **11**:398-402, 1951.

1971

ANNUAL MEETING

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Iowa Medical Society

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April 25-28

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Hotel Ft. Des Moines

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President's Page

The House of Delegates of the Iowa Medical Society took an historic and progressive action in January when it authorized the laying of the groundwork for a Foundation for Medical Care in Iowa.

During the past 10 months, the officers, membership and administrative staff of the Society have gathered information on the Foundation concept, have discussed it at some length, and finally in a special meeting of the House of Delegates the way was cleared for its formation in Iowa. Through a Foundation the profession can lead in measuring the quality and quantity of medical care delivered in the state.

In April when the House of Delegates meets in annual session final ratification of the Foundation mechanism will be sought. This will be a most noteworthy action.

President

Editorials

MEETING THE NEEDS OF TODAY'S COLLEGIAN

A recent study reports a four per cent increase in college enrollment in this country over 1969. There are 8.3 million students, of whom 2.1 million are freshmen. These figures are based on enrollment estimates from 564 colleges.

Apropos the vast increase in the number of colleges and universities and the millions of students in attendance, comments by President Lincoln Gordon* of Johns Hopkins University are deserving of serious attention by parents, by students and by counselors. He points out that though "these institutions are a national glory, a significant number of students are restless and rebellious, wondering why they are really there—instead of joy in learning, this group feels itself captured and purposeless."

The Johns Hopkins president declares that much of the working time of many students, even in our most prestigious institutions, is spent in grubbing for credits and grades, completing required courses or simply passing time for the necessary two to four or more years until the appropriate diploma is conferred.

The Baltimore educator says the opportunity for higher education should be provided to all, but he recommends abolishing compulsory studenthood. He suggests this can be accomplished in two ways: first by eliminating the lock-step tradition that determines the timing of higher education in the life of the young adult; and secondly by rejecting the sometimes excessive credentials which limit employment opportunities for young people who have not yet acquired the compulsive urge for further formal education.

President Gordon emphasizes that the high school graduate who is intent on a career in medicine and is eager to start his pre-medical preparation should, by all means, be encouraged to enter college at once, and even accelerate his program, consistent with his health and ability, and consistent with sound scientific training. Others lacking such clear-cut vocational motivation but possessing strong intellectual curiosity and learning desire, let them enter a liberal arts course at once and gradually find their life goals as they proceed in their formal education.

However, according to the author, there are many young people whose sense of purpose and urge for higher education will form more slowly, and they should enter college only when they want it and feel ready for it. Those students who do enter college and become disaffected and disenchanted should be permitted to drop-out without shame until they find themselves truly ready. Some will never reach that stage, but many will resume their education after a period of time.

There are obviously a considerable number of students in colleges and universities who do not belong there. They may lack motivation, they may be inadequately prepared for college work, or they may be too immature to cope with the challenge and the complexity of college life.

Iowa has made an extraordinary effort to meet the educational needs of its young people. In addition to our universities and colleges 15 area schools have been developed in the last five years and now provide educational opportunities in 98 of the 99 counties.

These schools offer educational opportunities for adults who have never completed the

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* Gordon, L.: Too many schools, too many students, too little to do. THE NATIONAL OBSERVER, Oct. 12, 1970.

Editorials continued...

eighth grade. They provide a two-year college parallel division, the equivalent of two years of liberal arts. Numerous career programs for both young men and women are offered, increased from 25 initially to over 100 at the present time.

In 1969 over 118,000 students were enrolled in the 15 area colleges, the majority on a part-time basis. A great many attend classes and laboratories at night. This fall there are over 20,000 students enrolled in the full-time career programs and the college parallel programs. Some 8,500 are enrolled in career programs which vary in length from 12 weeks to two years.

Many of the courses and programs are health related, e.g., licensed practical nursing, medical and dental assisting, operating room assisting, etc. There are courses for young men to qualify them to become carpenters, plumbers, masons, automobile mechanics, salesmen, etc.

The area community college program is an exciting one which is proving of great benefit to youth and the state, a rewarding complement to our outstanding educational institutions.

COMMUNICATION

During the past summer my family and I had the opportunity to attend a conference on communications, sponsored by MODERN MEDICINE Publications. This conference was developed by a training consultation firm headed by Richard E. Byrd and David G. Jones. Several other Iowans were also in attendance.

As a working definition, communication was presented as *The Art of Relationships*. Good communication, to provide good relationship, depends on a number of specific factors. These factors are necessary when the communication is between members of a family, employer and employee, and of course physician and patient. Thus, in all forms of social relationship—one to another communication is an art of interpersonal relationship. The existence of good communications depends upon:

- Openness
- Trust
- Care
- Conflict
- Growth
- Support
- and sometimes Love.

As each individual is different each has different ideas, needs, desires, experiences and resources.

The three-day course was primarily centered about the family unit—relationships between members of the family as well as between several families. The concepts, however, are applicable to any segment of society.

One of the major issues in communication is control. Certainly in medicine control is apparent—control over our own ideals and actions, control of society over physicians as a segment of that society, and of course control of the government over the entire social structure to serve itself with the assertion that at the same time all society is being served. Voting records show that in many instances government is no longer "of the people, by the people and for the people." Too many voters do not express themselves; there has developed a lack of communication between the voters and those who wish to be elected to a public trust. Consequently in some instances, the one given the trust of the public may exert an influence not to the good of all but to self-interests.

The same might occur in the society of medicine. There is great need for communication among physicians—I should say more need because, for the most part, at least in Iowa, there is a good inter-relationship of ideas. However, in the past there have been differences in such areas as Blue Cross/Blue Shield programming, vendor payment plans, etc.

I am not suggesting that one form of communication is better than another. My point is this: Government has decreed the state of af-

(Please turn to page 159)

(Continued from page 158)

fairs as regards Medicare and Medicaid. In so doing unwarranted abuses have been heaped upon the medical profession which demand for response better methods of communication. There is no reason why we members of a noble profession must stand idle in society without seeking just retraction of statements that may be true of a very minute proportion of our profession. There are "rotten apples" in every field—news-reporting, law, the clergy and politics. When a politician or a news editor has an ax to grind he finds the physician as an easy "patsy" because we stand idle and do not communicate with the public in an aggressive yet dignified manner. Very often the statements used about the profession are less than factual and regularly distorted.

The tenets alluded to earlier in this discussion should be used to the utmost advantage in our communication: openness, trust (though this may be hard to do at times), care, conflict, growth and support. If the art of relationship by communication can be fostered, love too will add to the fulfillment of same.

—M. E. ALBERTS, M.D.

Meeting of the

IMS
NOMINATING COMMITTEE

2:00 p.m., Sunday, March 28

IMS Headquarters Building

West Des Moines

Meetings of the Nominating Committee are open to all members of the IMS in good standing, except when the Committee goes into executive session.

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THE JOURNAL *Book Shelf*

Book Reviews

THE FACE IN GENETIC DISORDERS, by *Richard M. Goodman,* M.D., and *Robert J. Gorlin,* D.D.S., M.S. (St. Louis, C. V. Mosby Company, 1970. $19).

This atlas and text present a wealth of clinical information in a brief and highly practical format. For the student or the sophisticated expert, there is something of value. The textual material on *Family History and History Taking* and on *Genetic Counselling* should be required reading for all students. The bulk of the book consists of brief descriptions of specific syndromes and excellent photographs to demonstrate the physical features of each condition. This is a rich lode of easily accessible information which should be in every medical library and in the office of every practitioner.—*Sidney L. Sands,* M.D.

CURRENT DERMATOLOGIC MANAGEMENT, ed. by *Stuart Maddin,* M.D. (St. Louis, C. V. Mosby Company, 1970. $28.75).

Here is a book that will serve you well if you need current suggestions in managing dermatological disorders. Because the emphasis is on therapy, the authors assume you already have a diagnosis, for otherwise this book cannot help you much and you will need a more standard dermatological text. There are many fine black-and-white photos plus some miscellaneous color photographs of excellent quality, but with no rationale to relate these photos to a text on therapy, making the nice photos indefensible on either logical or economic grounds. An unusual drug index may prove useful occasionally. Dermatologists will probably want to own this book, and so will any other physician who is interested in truly current and authoritative suggestions for his patients with cutaneous disorders.—*Richard M. Caplan,* M.D.

INSTRUCTIONAL COURSE LECTURES, Vol. XIX, by American Academy of Orthopaedic Surgeons. (St. Louis, C. V. Mosby Company, 1970. $19.50).

These instructional course lectures are given during the annual meeting of the American Academy of Orthopaedic Surgeons. The practice of publishing them affords orthopaedic surgeons and others an opportunity to have a permanent record of the excellent presentations. Volume XIX is an exceptionally valuable book, especially to physicians interested in the treatment of fractures. Many Iowa general practitioners and general surgeons, as well as orthopaedic surgeons, will want to own this volume.

The chapter on unstable intertrochanteric fractures is one that will stimulate anyone who handles these injuries because it deals with the complicated, difficult to handle, intertrochanteric fractures that we all have difficulty treating. Three solutions to this problem are presented and the reader will either select one of the author's solutions or reject all three and modify his own treatment in the light of what he learns from these articles.

Another excellent article deals with troublesome fractures and dislocations about the hand. Many common pitfalls or errors in treatment are carefully described. There is a chapter dealing with the treatment of fractures in children which is a compact guide to the special problems associated with children's fractures.

The chapter on fractures about the ankle affords a rather superficial look at this group of fractures, but it does emphasize a necessity for a precise reduction of these interarticular injuries.

A chapter on wounds of the extremity which reviews the Viet Nam experience is a good summary of time-honored methods that should be used in the treatment of serious wounds of the extremity.

The problems dealt with in the book are ones which face many GP's, general surgeons and orthopaedists daily. The material is clear and concise and affords an excellent review of standard methods of treatment. Except for the section on intertrochanteric fractures, very little that is new is presented.—*John H. Kelley,* M.D.

HEALERS IN UNIFORM, by *Edward Edelson.* (Garden City, N. Y., Doubleday & Company, Inc. $3.95).

This book recounts the work of 12 physicians who served with U. S. Armed Forces from its beginning to the present.

It starts with Dr. Benjamin Rush telling of how he became a physician by apprenticeship, and how he finally cared for the sick and wounded in Washington's Army. It recalls his interest in mental health and comments on how he earned the title, "father of American psychiatry."

The life of Dr. William Beaumont and his association with the French-Canadian, Alexis St. Martin, is described. They were together for two years while Dr. Beaumont studied St. Martin's stomach through the open portal. This won Dr. Beaumont fame which continues to this time.

Others considered in the book are: Dr. John Shaw Billings, who collected books for the first Army medical library and who founded the Marine Hospital service; Dr. George Miller Sternberg, who did much

in the conquest of Yellow Fever; Dr. Bailey Ashford, who found the anemic condition of Puerto Ricans to be due to hookworm; and Dr. Harry G. Armstrong, who did the first organized study of space medicine.

The final chapter is a fitting tribute to Dr. John Paul Stapp whose efforts have led to seat belts, padded dashboards, etc.—*C. Harlan Johnston,* M.D.

PROGESTERONE: ITS REGULATORY EFFECT ON THE MYOMETRIUM, Ciba Foundation Study Group No. 34, ed. by *G. E. W. Wolstenholme* and *Julie Knight.* (London, J. & A. Churchill Ltd., 1969).

This book reports a day's symposium on this subject conducted by 19 individuals from various parts of the world, each involved in progesterone research. The total presentation is esoteric and has little direct relationship to the day-to-day problems we face in the practice of obstetrics. Over 99 per cent of the readers of the JOURNAL would find the material to be of little interest.—*Richard M. Moore,* M.D.

SYNOPSIS OF ANATOMY, by *Liberato J. A. DiDio,* M.D., Ph.D. (St. Louis, C. V. Mosby Company, 1970. $17.75).

The difficulty in preparing a synopsis of any technical subject involves the question of what to exclude and of how to present best that which is included. This text is an effort to include what is truly relevant anatomy for the student and at the same time relate this to functional as well as structural viewpoints and micro, as well as macro, perspectives. The author calls upon nine colleagues having specialized interest within the broader field to assist him in this rather formidable undertaking. Critical readers are rarely satisfied with any synopsis since each reader will be less than completely satisfied with those omissions of detail which he may wish had been included. This work is no exception, yet taken on the whole and considering its objectives, it must be afforded a place in the contemporary literature.—*Sidney L. Sands,* M.D.

Books Received

A SYNOPSIS OF PHARMACOLOGY, Second Edition, by *V. C. Sutherland,* Ph.D. (Philadelphia, W. B. Saunders Company, 1970, $11.65).

STEREOSCOPIC ATLAS OF SLIT-LAMP BIOMICROSCOPY, Volumes I and II, by *Alson E. Braley,* M.D., *Robert C. Watzke,* M.D., *Lee Allen,* and *Ogden Frazier.* (St. Louis, C. V. Mosby Company, 1970, $79.50).

IMMUNOLOGY OF MALIGNANT DISEASE by *Jules E. Harris,* M.D., F.R.C.P. (C), F.A.C.P., and *Joseph G. Sinkovics,* M.D., F.A.C.P. (St. Louis, C. V. Mosby Company, 1970, $15.00).

HERNIA REPAIR WITHOUT DISABILITY by *Irving L. Lichtenstein,* M.D. (St. Louis, C. V. Mosby Company, 1970, $26.50).

INFECTION CONTROL IN THE HOSPITAL. (Chicago, American Hospital Association, 1970, $4,00).

ADVENTURES IN MEDICAL WRITING, ed. by *Robert H. Moser,* M.D., and *Erwin Di Cyan,* Ph.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1970, $6.00).

SURGERY AND BIOLOGY OF WOUND REPAIR by *Erle E. Peacock, Jr.,* M.D., and *Walton Van Winkle, Jr.,* M.D. (Philadelphia, W. B. Saunders Company, 1970, $21.50).

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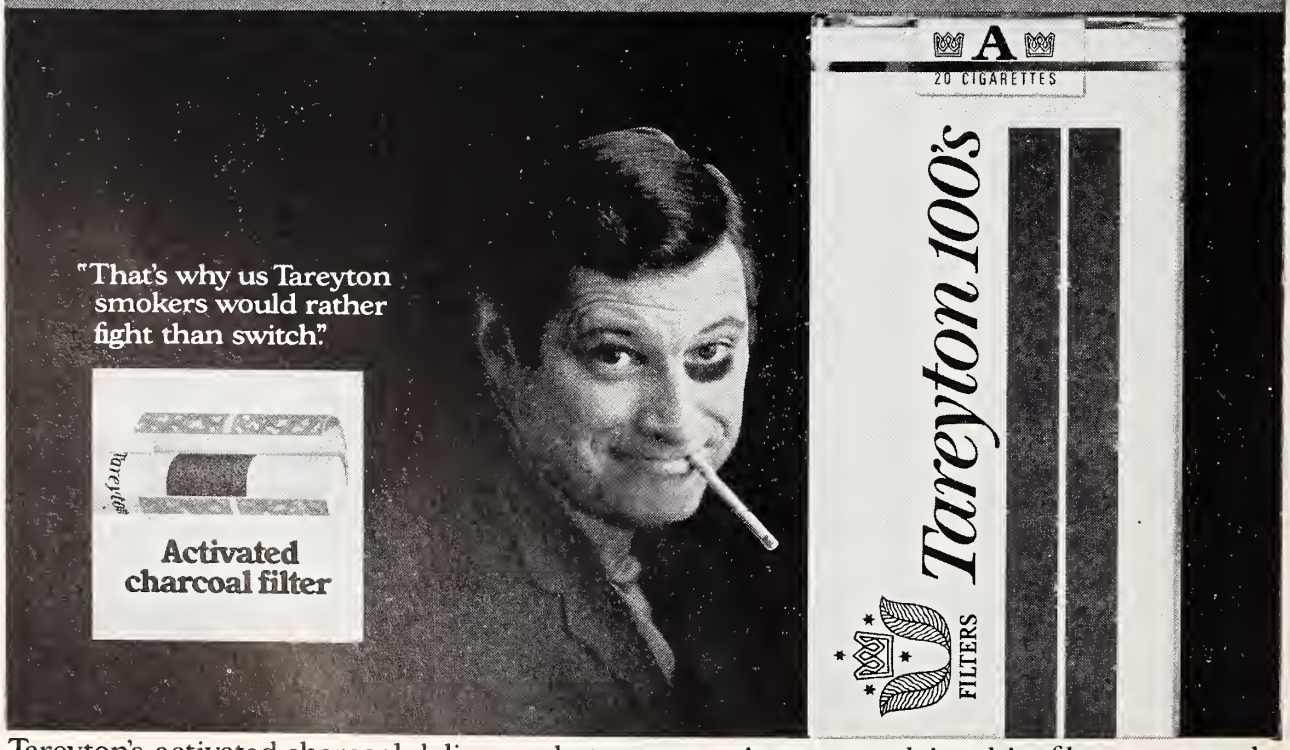

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WOMAN'S AUXILIARY to the IOWA MEDICAL SOCIETY

Serving People Everywhere Begins With Serving Someone Somewhere

1971 ANNUAL MEETING PROGRAM

Hotel Kirkwood | April 25, 26 & 27, 1971 | Des Moines

MRS. LELAND H. PREWITT, *Presiding*

SUNDAY, APRIL 25

1:00 p.m. REGISTRATION FOR BOARD MEMBERS—Lobby

1:30 p.m. BOARD OF DIRECTORS MEETING—Arbor Room

6:30 p.m. NO HOST SOCIAL HOUR AND SUPPER for Board Members, Convention Chairmen, Husbands and Special Guests, Officers' Club, Camp Dodge, Dr. and Mrs. E. J. Drew and Dr. and Mrs. J. F. Veverka, Chairmen

MONDAY, APRIL 26

8:00 a.m.-3:00 p.m. REGISTRATION—Lobby
Luncheon tickets available until 11:30 a.m.

7:30 a.m. FOURTH ANNUAL PAST PRESIDENTS' BREAKFAST (No Host)—Capitol Room

8:00 a.m.-8:45 a.m. COFFEE AND ROLLS—Arbor Room

9:00 a.m. FORMAL OPENING, 42ND ANNUAL MEETING—Orchard Room
Business Session and Reports

9:30 a.m. POLLUTION IS EVERYBODY'S BUSINESS—Mr. Elmer P. Wheeler, Manager, Environmental Health, Monsanto Company, St. Louis, Missouri

10:15 a.m. BUSINESS SESSION, Councilor and County President's Reports

12:30 p.m. LUNCHEON—Pioneer Room
Honoring Past State Presidents and County Auxiliary Presidents

1:30 p.m. GUEST SPEAKER—John W. Eckstein, M.D., Dean, College of Medicine, University of Iowa

2:00 p.m. COUNTY PRESIDENT REPORTS
Presentation of Volunteer Health Service Award

2:45 p.m. MEMORIAL SERVICE

7:00 p.m. NO HOST DINNER—State Officers, Board Members and Guests—Des Moines Club

TUESDAY, APRIL 27

8:00 a.m.-Noon REGISTRATION—Lobby—Luncheon tickets available until 11:30 a.m.

8:00-8:45 a.m. COFFEE AND ROLLS—Arbor Room

9:00 a.m. SECOND SESSION, 42ND ANNUAL MEETING—Orchard Room

9:15 a.m. GUEST SPEAKER—Mrs. Chester Young, North Central Regional Vice President, Kansas City, Kansas

9:45 a.m. COMMITTEE REPORTS & FINAL BUSINESS SESSION
Presentation of AMA-ERF Awards

11:15 a.m. GUEST SPEAKER—Mrs. R. William Westfall, Iowa Partners of the Alliance, Yucatan

12:30 p.m. LUNCHEON—Pioneer Room—Honoring North Central Regional Vice President, Mrs. Chester Young, Retiring State President and Auxiliary Guests

1:30 p.m. PROGRAM—Speaker to be announced
Installation of Officers—Mrs. Chester Young
Presentation of Past President's Pin
Presentation of President's Pin and Gavel
Inaugural Address—Mrs. Philip H. Tenney
Adjournment

2:45 p.m. POST CONVENTION EXECUTIVE COMMITTEE AND BOARD OF DIRECTORS MEETINGS—Arbor Room

6:00 p.m. IMS PRESIDENT'S RECEPTION AND BANQUET—Fort Des Moines Hotel

NOTE: Delegates are requested to be seated in reserved section by 8:55 a.m. each day. Members and guests are welcome in the President's Suite 1224 after the sessions Monday and Tuesday afternoons.

Woman's Auxiliary News

Legislative Brunch a Success

It was a pleasure to see many of you at the Brunch February 2 which honored members of the Legislative Ladies League. The event was hosted by the Auxiliaries to the Iowa Medical and Polk County Medical Societies at the IMS Headquarters Building. Trudie Beattie (Mrs. J. L.), our state legislative chairman, and Donita Fatland (Mrs. J. L.), the Polk County legislative chairman, planned a delightful party. One hundred and thirty-five legislators' and physicians' wives visited together and listened to Dr. John MacGregor of Mason City speak about the new "HOPE" project and of his work as a volunteer at Ganado on the Navajo Indian Reservation in northeast Arizona. His topic *HOPE Turns Homeward—The Navajo and Their Medical Problems* showed his deep concern for these Americans and that he is making an intensive study of these problems as well as giving much of his time to working on the reservation.

Mrs. MacGregor, a professional nurse in the public health field, served in Arizona with her husband and spoke briefly of her concern in this area.

Mrs. Robert Ray, Iowa's First Lady, Mrs. Roger Jepsen, Mrs. Richard Turner, Mrs. Melvin Synhorst, Mrs. Lloyd Smith and Mrs. Clifton Lamborn, the president of the Legislative Ladies League, were all introduced.

My sincere thanks to the chairmen and committees, to Hazel Lammey, to Dr. and Mrs. MacGregor, and to all of the members of both groups who assisted in making this a highlight of our Auxiliary year.

In addition to the Brunch I attended a budget committee meeting and had a conference with the parliamentarian, president-elect and the administrative secretary on the Annual Meeting agenda. I want to report that all of the plans are shaping up for the meeting. You will find a program in this issue; a more detailed program and agenda will reach you early in April. Make plans to be with us both days.

Please don't forget to complete reports, to send dues to Erlene and news to Kay. There is still time to plan an AMA-ERF project or undertake a community project.

In chatting with Mrs. Ray at the Legislative Brunch, I learned again how much the interest and help of Iowans is appreciated in our Central American sister state, Yucatan. The Governor and Mrs. Ray plan to be in Yucatan again in the Spring. SPRING WILL COME!!!

MARION PREWITT (Mrs. L. H.)
President

WA-AMA Guest Coming

Mrs. Chester Young of Kansas City, Kansas, will be a special guest at the upcoming Annual Meeting. Mrs. Young is the north central regional vice president of the Woman's Auxiliary to the AMA having served for four years as national AMA-ERF chairman. An auxiliary member for more than 20 years, Mrs. Young was her county auxiliary president in 1954 and Kansas state president in 1961.

A graduate of the Trinity Lutheran Hospital School of Nursing in Kansas City, Mrs. Young is married to a surgeon and they have three children.

A past president of the Optimisses Club, the Bethany Hospital auxiliary and Chapter FE of PEO, Mrs. Young is a member of the Methodist Church, the National Woman's Republican Council and Eastern Star. She is an avid collector of old and new cookbooks (she has over 300), blue glass, and live cats. She also enjoys fashion commentating, speaking about her cookbooks and traveling with her family.

Auxiliary Pledge

"I pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation, and ever sustain its high ideals."

Volunteer Health Service Award

Have you selected your candidate for this award?

The award is given annually to a person who has done outstanding volunteer work in the field of health or health education. Your candidate is not to be a member of a physician's family or one whose employment includes the health service for which she is being recognized.

Send the name of your candidate, a glossy picture if possible, and a description of her volunteer *health activities* in a brief biographical sketch. Mail to Woman's Auxiliary Advisory Committee, Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265, by April 1.

Meet Your 1970-71 State Officers

Second Vice President—Mrs. M. D. (Fran) Hayden

Cherokee

Auxiliary Activities: Plymouth County President; State Mental Health Committee Chairman, 2 years.

Fran was born and raised on a farm near Remsen in Plymouth County. She attended Western Union College (now Westmar College in Lemars), and then transferred to the University of Iowa. There she met and married medical student M. D. Hayden. After graduation and three Navy years, they returned to northwest Iowa to practice in Marcus before moving to Cherokee.

The Family: Mike, a son and a senior at Cherokee High School, is the reason their seasons are divided into football, wrestling, track and baseball. Their three daughters were all married in 1968. Connie (Mrs. George Cundy) is in Norfolk, Virginia. Her husband is in the Navy. Pat (Mrs. Neal Ehrich) lives in Iowa City and is a junior in the College of Medicine. Her husband is a junior in the Law School. Linda (Mrs. Terry Burkhart) and her husband are both juniors at Arizona State University at Tempe. They are the parents of the grandson, Mike, who is 21 months old.

Activities: Fran is circle chairman at the Methodist Church, recording secretary for PEO, a member of the state board of the Iowa Association for Mental Health, and is chairman for local mental health activities. She has served the County Fund Drive and is a Past Matron of the Order of the Eastern Star. She has been a den mother, worked with the American Cancer Society and with Rainbow Girls (she is still on their advisory board) and has been on her church's Youth Board. She is a Republican and served Governor Ray as local campaign chairman during both elections. The family enjoys travel and have visited all the states except Hawaii, usually pulling a travel trailer. They have also enjoyed trips to Canada, England, Ireland and Scotland. Fran also has time for reading and sewing.

Another Deadline

The Auxiliary's treasurer has a March 31 national deadline to meet. Membership as of this date will determine the number of Iowa delegates for the National Convention in Atlantic City, June 20-24, 1971. If you have not paid your current Auxiliary dues, please help Erlene by sending them to her NOW.

Members-at-large, mail your dues to the Councilor of your district or mail them directly to the state treasurer, Mrs. J. F. Veverka, Box 324, Prairie City 50228, and she will notify your Councilor so you will have your membership card prior to the Annual Meeting.

All members of organized county auxiliaries should send dues to the county treasurer so she will be able to meet this deadline.

Iowa's Outstanding Young Woman for 1970

"It was my appointment in October '69 as Chairman of the new Committee on Children and Youth of the Iowa Medical Auxiliary that led me into activities for which this award was made." So said Mrs. James David Kimball, the mother of two young sons and the wife of an Osceola physician.

Mrs. Kimball will be featured in the introductory pages of the 1970 edition of "Outstanding Young Women of America." The activities which led to her nomination include present service with Iowa Commission on Children and Youth, the Governor's Committee on Children and Youth, the Governor's Commission on Drug Abuse and the White House Commission on Children and Youth.

Mary Ellen was in the College of Nursing at the State University of Iowa between 1960 and 1963. Her past and present volunteer activities are numerous and varied but most recently she was instrumental in starting a local chapter on Drug Abuse Education. She received a distinguished service award from the Osceola Chamber of Commerce for her efforts and accomplishments in 1969.

Mary Ellen believes doctors' wives have a special knowledge about health and the well being of people, and that they can provide effective liaison in the organizations to which they belong. "We must not hestitate," she said "to use the contacts and facilities of which we are aware, that are available to us, to help our communities. But first we must be concerned and cognizant of what is going on in order to be of help."

Governor's Conference on Youth and Drugs

The Governor's Office and the Iowa Jaycees sponsored the Governor's Conference on Youth and Drugs on December 28 and 29. It was at C. Y. Stephens Auditorium on the Iowa State University campus.

Iowa's Governor Ray, Iowa Jaycee State President Don Haines and a Cedar Rapids student, Steve Burk, welcomed the 600 participants.

Nine Iowa youths were requested by Governor Ray to conduct seminars on the definition of drugs, legal implications and the physical and psychological effects of drug abuse. The selection of persons and materials as resources for each seminar was left to the student. Each conference participant attended three seminars during the late morning and afternoon.

The evening was devoted to three panel discussions, led by people who had experimented with and used drugs. A review of drug-related films followed the discussions. The second day of the Conference was opened with the film: "It Takes a Lot of Help."

The following six sessions filled the remainder of the day:

—*Creating a Community Awareness and Organizing a Community Effort,* by the Reverend Bill McKee, Sidney;

—*Organizing a Drug Education Program for Youth,* Ronald Kiser, a teacher in the Muscatine schools;

—*Organizing a Drug Education Program for Adults,* Bob Kaldenberg, a consultant in the State Department of Public Instruction, Indianola;

—*Establishing a "Crisis Line,"* Art Schut, Director of Youth Line, Des Moines;

—*Establishing a "Contact House,"* Richard Cook, Director of the Mid-Iowa Drug Abuse Council, Des Moines;

—*Developing a Treatment Capability,* Jack Schlooser, Staff Counselor, Mental Health Institute, Mt. Pleasant.

Final remarks were made by Dr. Phil Levine, until recently the Governor's Consultant on Drug Problems.

Concurrent with the Youth Conference was the Jaycee and adult session. Adults were oriented to the state drug education program with discussions on background, goals and the present community programs in drug education. Bob Kaldenberg and Bill Sherman, Iowa State Education Association, detailed the state-wide drug education programs. Finally, there was a panel discussion of Jaycees on participation and organizing local programs.

MARY ELLEN KIMBALL
State Chairman of Children and Youth

AMA-ERF

AMA-ERF Chairman Jane Perkins has a message for all medical wives: *NUDGE your husbands to make a contribution to AMA-ERF! Or make one yourself and send to:* **Mrs. Rollin Perkins, 125 East Rusholme, Davenport, Iowa 52803.**

Unmet Mental Health Needs

Mrs. D. J. Sheehan, Auxiliary Mental Health Chairman, attended the 28th Annual Meeting of the Iowa Association for Mental Health in Waterloo in December. She reports:

—a growing concern for preventive services for children and youth, especially those aimed at detection of early aberrations in emotional behavior;

—the need for adults in positions of influence (such as ministers, priests, doctors and police) to attend discussions and regional programs on family therapy—effective treatment for emotionally unstable youth;

—that seminars on mental health are advocated for teachers;

—that the medical care system in Iowa has made rapid strides, but that it is still not adequate;

—the need for community child development centers for the early detection of mental disorders;

—the need for regional programs for such special problems as mental health;

—the continuation of custodial and residential services for chronic mental disabilities.

The Association directors expressed concern over the decline of interest in mental health problems, and the lack of funding which results. Persistent effort was promised to interest individuals and groups in personal involvement in local chapters.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. L H. Prewitt, 33 Birchwood Hills, Ottumwa 52501

President-Elect—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

American Association of Medical Assistants

State of Iowa, Inc.

State Convention Preview

Mason City, Iowa, May 14, 15 and 16, 1971, Sheraton Motor Lodge, Hwy. 18 West—that's the place to be!

Program Chairman Millie Peters tells me the theme is *Rx for Better Living*—we will have a complete program ready for the April JOURNAL.

Donald "Red" Blanchard, *The Common Commentator,* a former Mason Citian, will be the banquet speaker. His topic will be, *Should a Brain Surgeon Have a High School Education?* Mr. Blanchard is a well known radio and television personality and very popular as an after-dinner speaker. A humorist, Mr. Blanchard has received an *Oscar* award as the best comedian of the year in Chicago Radio. This award is sponsored by the American College of Radio Arts, Crafts, and Sciences. He is also author of the column, *The Common Commentator,* published throughout the Midwest.

Our Convention Chairman, Tenora Meyer, and her Co-Chairman, Frances Cates, have many top-notch programs from which we should benefit. We benefit from joining with others in well planned educational programs, so do make your reservations early and take an active part.

Here are some new Chapter officers from around the State:

Mason City Chapter—President, Mildred Johnson, Memorial Hospital; Vice President, Phyllis Weatherman, Independent Medical Surgical Group; Secretary, Phyllis Pedersen, CMA, S. M. Haugland, M.D.; Treasurer, Wilma Lee, James Lannon, M.D.

Des Moines Chapter—President, Colleen Overton, Drs. McGarvey, Schupp and McBride; President-Elect, Pam Langford, and Vice-President, Diane Day, both from the office of Drs. Dubansky, Robinow and Flapan; Secretary, Peggy Davis, James E. Kelsey, M.D.; Treasurer, Sandy Lee, James Dolan, M.D.

Scott County Chapter—President, Marcine Sanders, Drs. Larson and Motto; President-Elect, Jean Gold, Urological Associates; Vice-President, Joan Gould, Drs. Whitmore, Sinning and Miller; Secretary, Nancy Alice Giles, C. M. Zukerman, M.D.; Treasurer, Mary Ann Jaros, George E. Morrissey, M.D.

As soon as I have officers from other Chapters, they, too, will be published.

We have come across some interesting facts in our Study Group; I wonder how many of you are familiar with, or have ever thought about the History of Medicine. Humans have tried to ease their pain, conquer their illness and to feel healthy since the beginning of time. Imhotep, physician to the Pharaoh around 3000 B.C., was deified as the God of Healing. Egyptians also used incantations, spells and medicinal remedies. The Hindus were pioneers in plastic surgery, they learned to replace the nose because a law required its removal if one committed adultery. The Greek physician, Asclepius, was known as the God of Medicine. The staff and serpent, the symbol of medicine today, were of his origin. His temples were the first known hospitals.

The Greek philosopher, Aristotle, made a great contribution to medicine through his study of all living things. Hippocrates, the Father of Medicine, is a familiar name; he is considered the greatest of Greek physicians.

A medical school was established in Egypt in 300 B.C., and Europe's first medical school was begun in Salerno, Italy, in the 10th century. In the 18th century, surgery was elevated to the level of a science. The science of pathology came along in 1761 and vaccination was developed by an Englishman, Edward Jenner. In the 19th century, scientific discoveries by Louis Pasteur and Joseph Lister showed certain diseases and infections were caused by bacteria, and that a little care in antiseptic procedures could prevent a wound from becoming infected.

Americans discovered general anesthesia, and the use of ether was introduced in 1846. W. K. Roentgen discovered x-ray and the term Roentgen ray was established to honor him. The 20th century has brought all kinds of discoveries, e.g., blood transfusions, open heart surgery, kidney and lung machines, all used daily in our offices and hospitals. More medical progress has been made since World War II than in the 50 centuries before.

Is it any wonder that more and more paramedical personnel will be needed as we seek good health for everyone? Today's emphasis is on prevention and we are all involved. I might mention —study groups can be fun!

JEANNE D. GREEN

MEDICAL MEETINGS

IN STATE

Mar. 30 — **Diet Therapy U. S. A.—Digestion: Maxi, Midi and Mini, University of Iowa,** Iowa Memorial Union, Iowa City.

CONTINENTAL U. S.

Mar. 1-6 — **Annual Meeting of Society for Cryosurgery,** Diplomat Hotel and Country Club, Hollywood, Florida.

Mar. 3-4 — **Update 1971—Selected Topics in Nursing sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 3-5 — **Symposium on Environment and Cancer sponsored by University of Texas, M. D. Anderson Hospital, and Tumor Institute,** Texas Medical Center, Houston.

Mar. 3-6 — **27th Annual Midwest Clinical Conference of Chicago Medical Society,** McCormick Place, Chicago.

Mar. 4-6 — **Annual Meeting of Society for Contemporary Ophthalmology,** Diplomat Hotel and Country Club, Hollywood, Florida.

Mar. 7-12 — **Problems and Approaches to Diagnosis and Management of Cardiopulmonary Failure sponsored by University of Miami School of Medicine and American College of Chest Physicians,** Miami Beach.

Mar. 8-12 — **Postgraduate Course on Advances in Medical Oncology sponsored by American College of Physicians,** Shamrock Hilton Hotel, Houston.

Mar. 8-12 — **Postgraduate Course on Pediatrics sponsored by University of Kansas Medical Center,** Battenfeld Auditorium, Kansas City, Kansas.

Mar. 10-11 — **Postgraduate Course on Advances in Urology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 15-17 — **18th Combined Meeting for Doctors and Nurses sponsored by American College of Surgeons,** Fairmont Roosevelt and Jung Hotels, New Orleans.

Mar. 15-18 — **Postgraduate Course on Modern Advances in Hematology sponsored by American College of Physicians,** New York Hospital Medical Center, New York.

Mar. 15-26 — **Postgraduate Course in Laryngology and Bronchoesophagology,** University of Illinois Medical Center, Chicago.

Mar. 17 — **2nd International Symposium on Early Disease Detection,** University of Chicago Center for Continuing Education, Chicago.

Mar. 17-18 — **Postgraduate Course on Blood Banking sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 18-19 — **Postgraduate Course on Bio-chemistry of Disease,** University of Nebraska Medical Center, Omaha.

Mar. 18-20 — **Postgraduate Course on Office Management of Emotionally Disturbed Patient sponsored by Department of Psychiatry, University of Minnesota and Minnesota Academy of General Practice,** Nolte Center for Continuing Education on Minneapolis Campus, Minneapolis.

Mar. 18-20 — **National Medicolegal Symposium jointly sponsored by American Bar Association and American Medical Association,** Americana Hotel, New York.

Mar. 24-25 — **Postgraduate Course on Medical Progress and Its Relationship to Dentistry sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Mar. 25-26 — **24th National Conference on Rural Health,** Atlanta Marriott Motor Hotel, Atlanta.

Mar. 25-26 — **Postgraduate Course on Obstetrics and Gynecology,** University of Nebraska Medical Center, Omaha.

Mar. 29-31 — **7th Annual Postgraduate Course on Cardiac Resuscitation,** University of Nebraska Medical Center, Omaha.

Mar. 30-Apr. 1 — **Postgraduate Course on Updating Neurology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Apr. 1-3 — **Postgraduate Course on Pediatric Immunology,** University of Wisconsin Medical Center, Madison.

Apr. 2-3 — **5th National Congress on Socio-Economics of Health Care,** Caesar's Palace, Las Vegas.

Apr. 5-6 — **2nd Annual Cleveland Clinic Sports Medicine Symposium,** Cleveland Clinic Educational Foundation, Cleveland.

Apr. 5-6 — **22nd Annual Symposium on Ophthalmology sponsored by University of Kansas School of Medicine,** Battenfeld Auditorium, Kansas City, Kansas.

Apr. 5-9 — **Postgraduate Course on Recent Advances in Cardiovascular Diseases sponsored by American College of Physicians, Mt. Sinai School of Medicine,** New York.

Apr. 12-14 — **Postgraduate Course on Anesthesiology sponsored by University of Kansas Medical Center,** Battenfeld Auditorium, Kansas City, Kansas.

Apr. 14-15 — **Symposium on Anesthesiology sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

Apr. 14-16 — **Postgraduate Course on Management and Care of Respiratory Insufficiency sponsored by University of Colorado School of Medicine.**

Apr. 15-16 — **Postgraduate Course on Recent Advances in Clinical Pediatrics,** University of Nebraska Medical Center, Omaha.

Apr. 17 — **Regional Conference of Omaha Ostomy Association,** 6917 Bedford Avenue, Omaha.

Apr. 19-21 — **Annual Spring Session of American Academy of Pediatrics,** Chase-Park Plaza Hotel, St. Louis.

Apr. 19-21 — **3rd Allied Health Postgraduate Course in Diabetes sponsored by American Diabetes Association in cooperation with University of California,** San Francisco.

Apr. 19-21 — **Postgraduate Course on Clinical Pharmacology With Emphasis on Newer Drugs sponsored by American College of Physicians,** Americana Hotel, New York.

Apr. 21-23 — **Postgraduate Course on Management and Care of Respiratory Insufficiency sponsored by Colorado-Wyoming Regional Medical Program and University of Colorado School of Medicine,** Denver.

Apr. 22-23 — **Postgraduate Course on Hematology sponsored by University of Nebraska Medical Center,** Omaha.

Apr. 23-24 — **28th Annual Meeting of American Geriatrics Society,** Ambassador Hotel, Chicago.

Apr. 26-29 — **8th Annual Reserve Forces Medical Symposium jointly sponsored by Air National Guard and Air Force Reserve,** Shamrock Hilton Hotel, Houston.

Apr. 26-30 — **Postgraduate Course on Alcoholism and Chronic Liver Disease sponsored by American College of Physicians,** Shattuck Hospital, Boston.

Apr. 29-May 1 — **Postgraduate Course on Dermatology in General Practice sponsored by University of Colorado School of Medicine,** Denver.

ABROAD

Apr. 30-May 20 — **Medical Seminar Cruise to Mediterranean sponsored by Department of Postgraduate Medicine, Albany Medical College,** Ports of call include Casablanca, Naples, Genoa, Cannes, Barcelona, and Lisbon.

Continuing Education Courses & Conferences

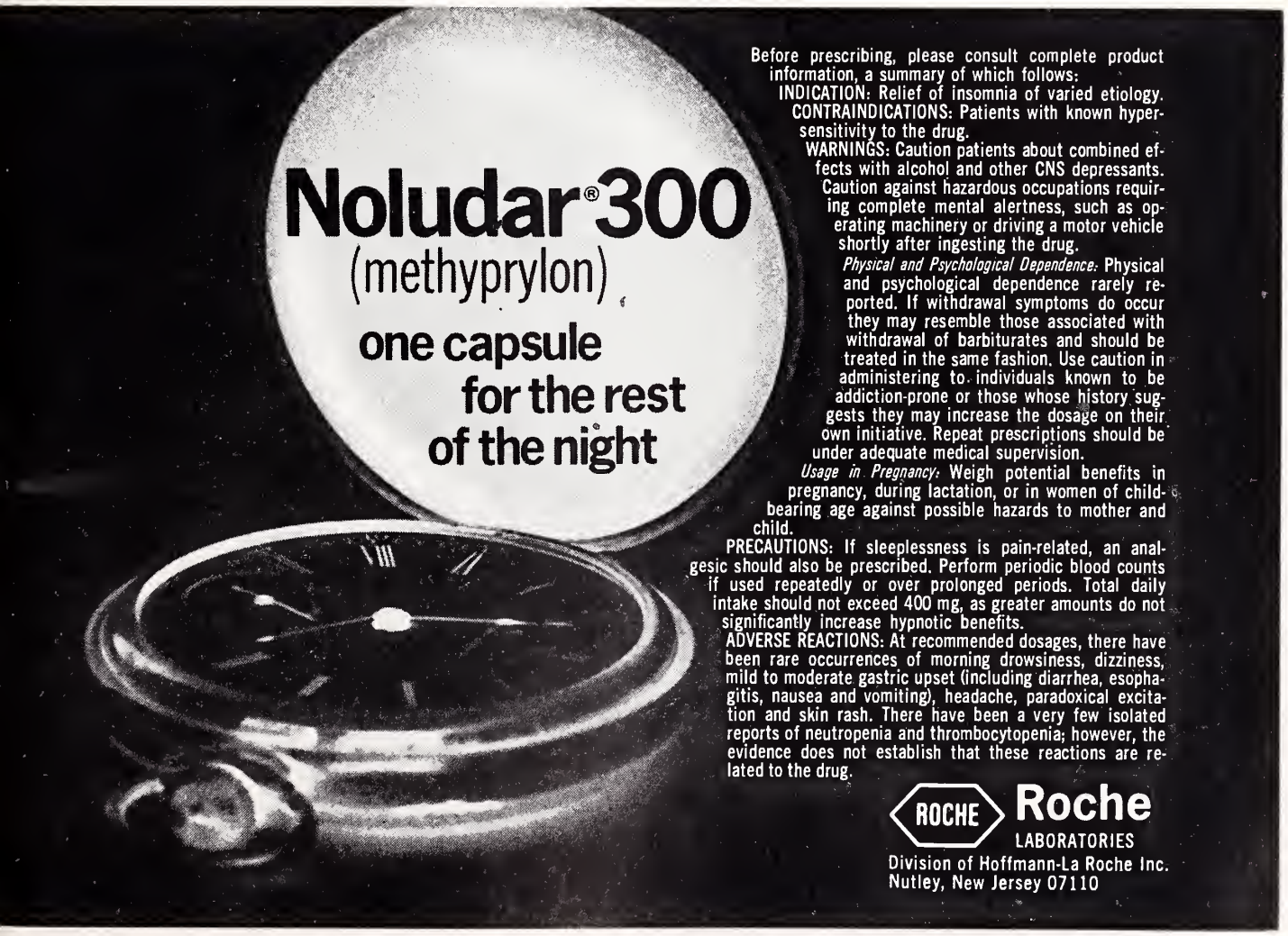
Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-4792.

Mar. 17-18	Upper Respiratory Bacteriology (State Hygienic Laboratory)
Mar. 24	Refresher Course on Cerebrovascular Disease
Mar. 24	Vision Workshop for the Generalist
Apr. 1-2	Biomechanics in Physiotherapy
Apr. 6-7	Hematology (State Hygienic Laboratory)
Apr. 7	Ophthalmology Clinical Conference
Apr. 9-10	In-House Conference for Practitioners
Apr. 17	Workshop in Basic Blood-Banking (Council Bluffs)
Apr. 19-24	Management of Maxillofacial Injuries
Apr. 28	Refresher Course on Cerebrovascular Disease

U. of I. College of Medicine

A series of conferences entitled, "The Community Fights Back," will be presented by the U. of I. College of Medicine during the coming four months. The first four sessions will deal with Alcohol and Drug Abuse and will occur as follows:

Apr. 10	University of Iowa Memorial Union, Iowa City
Apr. 17	Hotel Blackhawk, Davenport
Apr. 21	Holiday Inn South, Des Moines
Apr. 22	St. Anthony's Regional Hospital, Carroll



Before prescribing, please consult complete product information, a summary of which follows:
INDICATION: Relief of insomnia of varied etiology.
CONTRAINDICATIONS: Patients with known hypersensitivity to the drug.
WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of child-bearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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Personals

Dr. Beryl F. Michaelson, of Dakota City, received the Citizen of the Year Award at a recent dinner held in her honor at St. Mary's Elementary School in Humboldt. The award is presented annually to a member of the community who has contributed significantly in the areas of brotherhood and service. Kent Porter, president of St. Mary's CYO, presented the award plaque to Dr. Michaelson. In accepting the award, Dr. Michaelson said, "We are not what we make ourselves, we are the product of the environment in which we live. . . ." A 1949 graduate of The U. of I. College of Medicine, Dr. Michaelson has practiced in Dakota City since 1955.

Dr. Alden F. Wiley, of Waukon, has been named to a three-year term on the Allamakee County Board of Health and **Dr. L. B. Bray,** also of Waukon, has been named Allamakee County Home physician.

Dr. Robert Merrick recently joined **Dr. E. M. Downey** in the practice of medicine in Guttenberg. Dr. Merrick is a 1969 graduate of The U. of I. College of Medicine. He interned at San Joaquin General Hospital in Stockton, California.

The Humboldt County Board of Supervisors recently appointed **Dr. James H. Coddington,** of Humboldt, to serve as county medical examiner.

Dr. John Beattie, of Creston, showed an American Cancer Society film on "Breast Self Examination" at a recent meeting of the hospital auxiliary members of the Creston Greater Community Hospital. Following the film, Dr. Beattie discussed x-ray mammography for detection of breast cancer and answered questions from the audience.

Dr. John Griffin, of Knoxville, has been named Marion County medical examiner and **Dr. Stewart Kanis,** of Pella, has been reappointed deputy examiner.

Dr. Adolph L. Sahs, professor and head of neurology at The U. of I. College of Medicine, has been elected chairman of the professional advisory board of the Epilepsy Foundation of America. Dr. Sahs has served as chairman of the advisory board's executive council and recently was elected as a member of the Foundation's board of directors.

Dr. Paul D. Boone, of Paullina, has been appointed to the O'Brien County Board of Health. Dr. Boone will succeed **Dr. R. L. Zoutendam,** of Sheldon, who resigned the first of the year.

At the annual meeting of the Tama County Medical Society, **Dr. R. W. Linthacum** of Dysart was elected president, and **Dr. G. M. Dalbey,** of Traer, vice-president. **Dr. A. J. Havlik,** of Tama, was re-elected secretary-treasurer.

Donald L. Taylor, executive vice-president of the Iowa Medical Society, was elected recently to the board of directors of the Professional Convention Management Association at the group's annual meeting in New York.

Dr. Donald C. Green, of Des Moines, has been elected chief of staff at Northwest Community Hospital. Other Des Moines physicians elected to serve on the staff are **Dr. Charles Johnson,** vice-president, and **Dr. Donna Drees,** secretary-treasurer. Department heads for 1971 will be as follows: **Dr. Paul Holzworth,** general practice; **Dr. Edward Drew,** surgery; **Dr. Ernesto Barrantes,** anesthesiology; **Dr. Byron Augspurger,** radiology; **Dr. Roy Overton,** out-patient emergency; **Dr. Norman Bone,** obstetrics; **Dr. David Gordon,** internal medicine, and **Dr. Mark Thoman,** pediatrics.

Dr. James Bullard, of Decorah, has been appointed medical examiner for Winneshiek County.

Dr. Terry F. Dynes, of Decorah, **Dr. Garfield Miller,** of Calmar, and **Dr. Ignatius Green,** of Ossian, were named assistant medical examiners.

Dr. T. E. Blong, a general practitioner in Stacyville for the past 37 years, has announced he is retiring. Dr. Blong, a native of Waucoma, Iowa, received the M.D. degree from Marquette University. In 1953 he formed a partnership with **Dr. R. J. Smith** who will continue to practice in Stacyville.

Dr. John M. Schutter, of Algona, has been appointed Kossuth County medical examiner and all other physicians in the county have been appointed deputies.

Dr. Robert Guthrie has joined the radiology staff at The U. of I. College of Medicine as an associate in radiation therapy. A graduate of The U. of I. College of Medicine, Dr. Guthrie interned at Los Angeles County Hospital in California, then served 2½ years as a flight surgeon with the U. S. Navy. He is a native of Clear Lake, Iowa, and recently completed a three-year residency in radiology at University Hospitals.

Dr. James Mincks, of Bloomfield, described his experiences aboard the hospital ship Hope at the annual Lions Club Farmers' Night in Fairfield. Dr. Mincks showed color slides of the Hope and described its activities while making a call to the city of Barranquilla in Colombia.

Dr. Einer Juel, of Atlantic, discussed some of the changes taking place in the health field at the annual meeting of the Atlantic Chamber of Commerce. **Dr. John Weresh,** also of Atlantic, was awarded a past-president plaque at the meeting in recognition of his service to the Chamber as 1970 president.

Dr. J. A. Broman, of Maquoketa, has been appointed medical examiner for Jackson County. **Dr. James Cahill,** of Preston, and **Dr. Clifford Rask,** of Maquoketa, will serve as deputies.

Four Charles City physicians—**Dr. Werner Pelz, Dr. Edward Schmiedel, Dr. Kenneth Stiemel** and **Dr. Robert Huber** have moved into a new medical building south of the Floyd County Memorial Hospital. The new 6,700 square foot clinic includes a pharmacy and can accommodate two additional physicians.

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At the annual meeting of the medical staff of St. Joseph Mercy Hospital in Clinton, **Dr. George L. York** was elected president and **Dr. J. F. Holl,** vice-president. **Dr. Charles Waggoner,** guest speaker at the meeting, presented a series of slides and discussed his recent South Africa tour.

Dr. Frank F. McKean, of Allison, has been named Butler County medical examiner and **Dr. B. V. Anderson,** of Greene, and **Dr. Floyd Rolfs,** of Parkersburg, deputy medical examiners.

Dr. John Weresh is the new chief of staff at Cass County Memorial Hospital in Atlantic. **Dr. Keith Swanson** will serve as secretary and **Dr. Dwight Stone** has been named chief of surgery. **Dr. Dwain Wilcox** is chief of medicine, inhalation and physical therapy.

Dr. Chester McClure, formerly of Independence, has accepted the position of full time psychiatrist for the Northeast Iowa Mental Health Center in Decorah. The Center serves Clayton, Allamakee, Winneshiek and Howard counties.

Dr. R. E. Weland, of Cedar Rapids, has been elected chairman of the board of the Iowa division of the American Cancer Society. Dr. Weland, who also has served as president of the Iowa division, is the immediate past president of the Linn County chapter. He also has been serving as chairman of the Iowa division's professional education committee.

Dr. J. H. Sunderbruch, of Davenport, has been re-elected chairman of the Scott County Board of Health.

Dr. Richard M. Caplan, professor of dermatology and assistant dean for continuing education at The U. of I. College of Medicine, has been named chairman of a new national Task Force on Undergraduate Education in Dermatology. The Task Force is part of the National Program for Dermatology, formed and organized in late 1967, as an all-encompassing educational, service, and research plan for the future.

Dr. J. E. Murtaugh, of New Hampton, has been appointed Chickasaw County medical examiner for a two-year term.

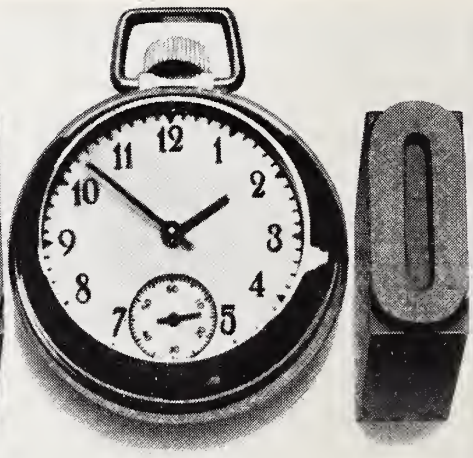
Dr. and Mrs. F. H. McClurg recently shared their experiences while on an African Safari with the members of the Wit and Wisdom Club in Fairfield. Dr. and Mrs. McClurg made the African trip last year under the sponsorship of the Polk County Medical Society. **Dr. and Mrs. Jack Morgan,** also of Fairfield, co-hosted the meeting.

Dr. Herbert Neff, of Guthrie Center, **Dr. Norman Krueger,** of Casey, and **Dr. William A. Seidler, Jr.,** of Jamaica, have been named Guthrie County medical examiners.

Dr. George Aurand, of Clinton, discussed therapeutic abortion at a recent meeting of the Clinton Kiwanis Club.

one capsule for the rest of the night

NOLUDAR® 300



(methyprylon)

Before prescribing, please consult complete product information, a summary of which follows:
INDICATION: Relief of insomnia of varied etiology.
CONTRAINDICATIONS: Patients with known hypersensitivity to the drug.
WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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Dr. Paul Scott, of Ottumwa, has been appointed health physician for that city. The physician who serves as president of the Wapello County Medical Society is named each year to this city position.

Dr. Donald J. Soll, of Denison, has been appointed to the Comprehensive Health Planning Advisory Council of Iowa by Governor Robert D. Ray. Dr. Soll will join the 27 member panel of physicians, veterinarians, dentists, nurses and laymen who assist the State Department of Health in planning health care for the state.

Dr. W. H. Verduyn, of Reinbeck, and **Dr. Glendon Button,** of Conrad, have been named Grundy County medical examiners. Dr. Button has also been appointed to a three-year term on the Grundy County Board of Health.

United States Representative John C. Culver, (Dem., Cedar Rapids), addressed a recent meeting of the Johnson County Medical Society. His subject was "Health Care and Congress."

Dr. Richard C. Johnston, Des Moines orthopedic surgeon, was the guest speaker at a meeting of the Wapello County Medical Society. Dr. Johnston's topic was "Hip Reconstruction."

Dr. John H. Polich, a Des Moines pediatrician, has been named chief of staff at Mercy Hospital in Des Moines.

The following Council Bluffs physicians have been elected 1971 officers of the Jennie Edmundson Hospital medical staff. **Robert H. Westfall** has been named president-elect. Department heads are **Dr. G. L. Neligh,** medical; **Dr. M. P. Margules,** surgery; **Dr. E. O. Bean,** pediatrics; **Dr. A. M. Pederson,** general practice, and **Dr. D. D. Warden,** obstetrics and gynecology.

The following Burlington physicians have been elected 1971 officers of the Memorial Hospital medical staff: **Dr. R. J. Rettenmaier,** president; **Dr. Sixto Guiang,** vice-president, and **Dr. Bernard Pineda,** secretary. On the executive committee are **Drs. Walter Friday, William Vaughan,** and **Warren Zabloudil.** Chiefs of services are: **Drs. Robert Allen,** surgery; **Joseph Stoikovic,** medicine; **John Foss,** obstetrics and gynecology; **Sixto Guiang;** pediatrics, and **Harry McMurray,** general practice. **Drs. Robert Bell** and **Curtis Nessa** head the radiology department and the pathology department is headed by **Drs. Donald Winter, Ralph Rettenmaier,** and **George Zimmerman.**

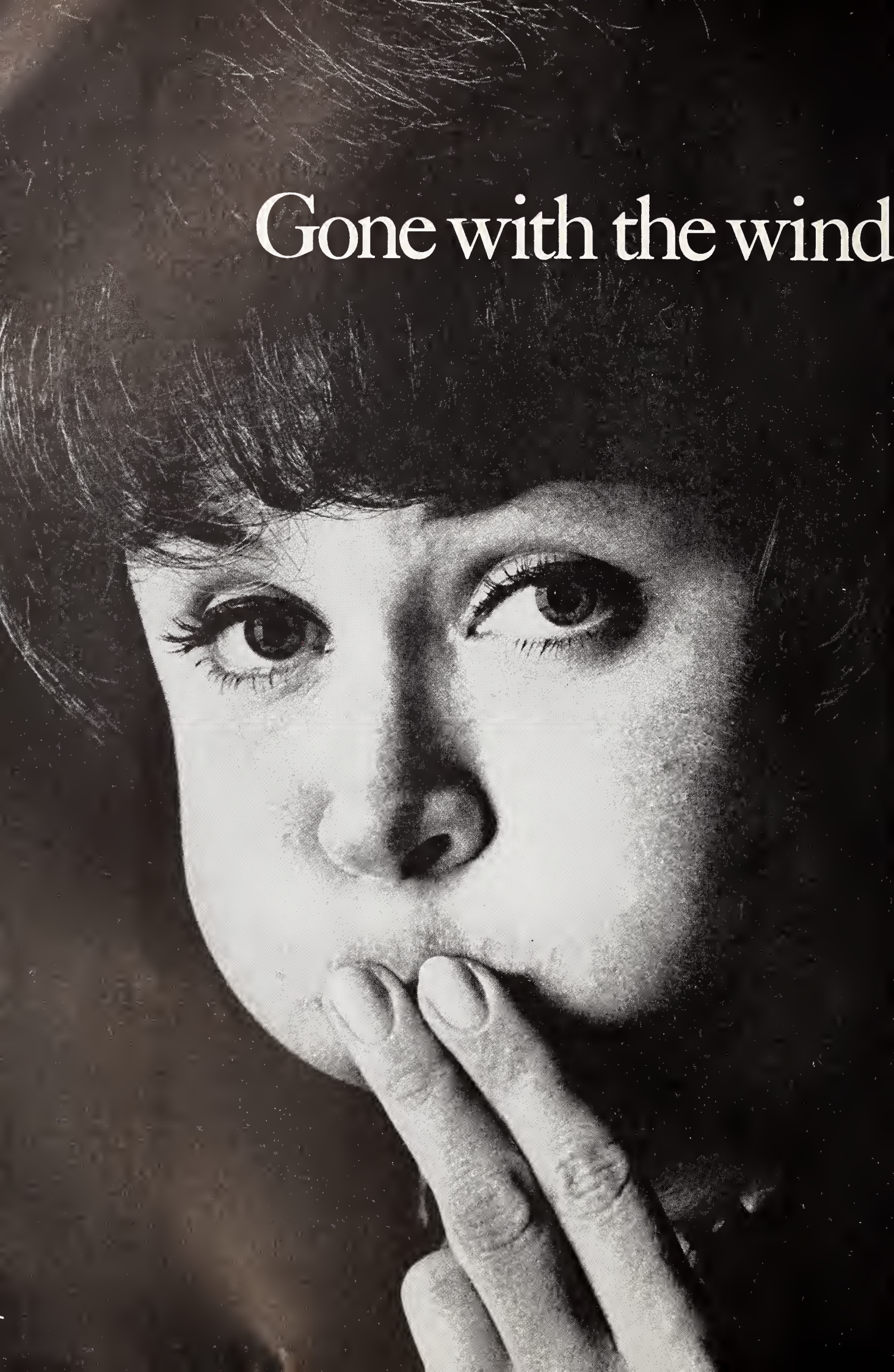
SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

A most worthwhile mechanism for creating a memorial to a relative, associate, colleague or friend exists in the Scanlon Medical Foundation/Iowa Medical Society. The Foundation utilizes memorial gifts to carry forward its loan program which has helped more than 300 young Iowans finance their medical educations. The Foundation will be glad to send an appropriate card in the name of the donor to the family of the person honored. The tax-deductible memorial gifts should be directed to the Scanlon Medical Foundation/Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

Dr. Philip R. McFadden, a Marshalltown obstetrician and gynecologist, was guest speaker at a recent Y-Teen meeting of the YWCA in Marshalltown.

Dr. Charles H. Fee, of Denison, and **Dr. Ronald L. Zoutendam,** of Sheldon, attended a Conference on Family Practice during January at the University of California, Irving-College of Medicine, in Newport Beach, California.

Dr. William B. Bean, Sir William Osler Professor in the Department of Internal Medicine at The U. of I. College of Medicine, presented two talks at the International Medical Assembly of Southwest Texas in San Antonio. Titles of his lectures were "The Masquerades of Myocardial Infarction," and "Obscure Enteric Bleeding in Rare Disease With Diagnostic Skin Lesions."


Gone with the wind

Dr. John M. Rhodes, of Pocahontas, has been named president of the Pocahontas County Heart Association and **Dr. James Slattery,** also of Pocahontas, is the 1971 Heart Fund campaign chairman.

Dr. Norman K. Rinderknecht, of Des Moines, was guest speaker at a recent meeting of the Dallas-Guthrie Medical Society. His topic was "High Risk Pregnancy." Two Dexter physicians, **Dr. Keith M. Chapler** and **Dr. C. Robert Osborn,** hosted the meeting.

Dr. Reginald R. Cooper, associate professor of orthopedics at The U. of I. College of Medicine, recently served as distinguished lecturer at the Hospital for Special Surgery in New York. Dr. Cooper presented two lectures on "Bone and Bone Tendon Junction Ultrastructure," and "Effects of Use and Disuse on Skeletal Muscle." He was also a visiting professor at the Albert Einstein College of Medicine in New York and participated in rounds and clinics.

Dr. John R. Doran, an Ames gynecologist, spoke on "Physical Development in the Teen Years," at a meeting in Jewell for all junior high age boys and their fathers. The program was sponsored by the Hamilton County Health Improvement Association and the local Extension Service.

Dr. William L. Jackson, a Sioux City pediatrician, received the Jaycees Distinguished Service Award at the annual Sioux City Jaycees DSA-Bosses Night banquet. Dr. Jackson was chosen on the basis of his outstanding contributions to the health needs of Sioux City. He has worked extensively in the area of developing and promoting health care programs to aid children. Dr. Jackson has been co-chairman of the March of Dimes and the rubella vaccine program for Woodbury County. He is a board member of the Easter Seal Society and president of the Siouxland Rehabilitation Center.

Recent presentations by faculty members of the Department of Surgery at The U. of I. College of Medicine include a "Report of the Activities of the American Board of Thoracic Surgery," by **Dr. Johann L. Ehrenhaft,** professor and chairman of the division of cardiothoracic surgery, at a meeting of the Society of Thoracic Surgeons in Dallas; a talk on "Gastric Bypass," by **Dr. Kenneth J. Printen,** assistant professor, at the Butterworth Hospitals in Grand Rapids, Michigan; and a lecture on "Prophylaxis and Treatment of Burn Sepsis," by **Dr. Charles E. Hartford,** assistant professor, at a house staff meeting at Mercy Hospital in Des Moines.

Dr. Leslie Bernstein, professor and chairman of the section of maxillofacial plastic surgery in the Department of Otolaryngology and Maxillofacial Surgery at The U. of I. College of Medicine, was guest editor of the February edition of OTOLARYNGOLOGIC CLINICS OF NORTH AMERICA. Dr. Bernstein also contributed two chapters to the volume: "Pediatric Sinus Problems," and "The Caldwell-Luc Operation."

Dr. D. W Todd was elected chief of staff of the Guthrie County Hospital at the January meeting of the medical staff. **Dr. Herbert Neff,** also of Guthrie Center, was named vice-president, and **Dr. D. E. Taylor,** of Stuart, secretary.

Dr. William B. Bean, Sir William Osler Professor of Internal Medicine at The U. of I. College of Medicine, has been elected a Master by the American College of Physicians, the highest membership category in the 16,000-member international medical society. Masterships signify Fellows of the ACP who have attained eminence in science, research, or the practice of teaching medicine. There are fewer than 100 Masters in the ACP.

Dr. E. J. DeLashmutt, of Fort Madison, has been credited with a major role in the development of the first man-made absorbable wound-closing material. Dr. DeLashmutt is one of a group of physicians and other scientists who worked nine years in the development of the new material called Dexon. A native of Burlington, Dr. DeLashmutt is chief surgeon at the Valley Clinic in Fort Madison and a member of the surgical committee of Sacred Heart Hospital.

Visit Your Exhibits

at the

IMS Annual Meeting

Mezzanine Floor—Hotel Fort Des Moines

Monday, April 26

8:00 a.m.—5:00 p.m.

Tuesday, April 27

8:00 a.m.—5:00 p.m.

Dr. Chester McClure, of Decorah, was the guest speaker at the annual meeting of the Winneshiek County Association for Mental Health. "Family Failure and Feelings" was the subject of his presentation.

Dr. J. A. Broman, of Maquoketa, has been certified for the period 1970-1977 as a charter member of the American Board of Family Practice, a new specialty board branching from the American Academy of General Practice.

Dr. Dudley Denison, chief cardiologist at the Veterans Administration Hospital in Des Moines, was guest speaker at a recent meeting of the Iowa City Christian Women's Club. Dr. Denison is the author of a book entitled, SHOCK IT TO ME DOCTOR.

The following Bloomfield physicians have been elected 1971 officers in the Davis County Medical Society. **Dr. H. A. Mahannah** has been named president; **Dr. Mark D. Pabst,** vice-president; **Dr. John R. Scheibe,** secretary-treasurer; **Dr. Richard Schoonover,** IMS delegate, and **Dr. Scheibe,** alternate IMS delegate.

Dr. Harry Alcorn has been elected president of the medical staff at Mason City's Mercy Hospital. **Dr. John Baker** was named president-elect, and **Dr. Samuel Porter,** secretary. Section chairmen elected are **Dr. William Rosenfeld,** medical; **Dr. Warren Wulfekuhler,** surgical, and **Dr. Gerald Brady,** obstetrical. All are Mason City physicians.

Dr. W. E. Bullock, of Lake Park, was honored recently by the Lake Park Chamber of Commerce on the occasion of his 100th birthday. Dr. Bullock served the people of the Lake Park community for 60 years. A 1901 graduate of The U. of I. College of Medicine, Dr. Bullock received a birthday message from President and Mrs. Richard Nixon.

Dr. John Martin, of Clarinda, spoke recently at a meeting of the Page County Ministerial Association. His topic was "A Physician's View of Death."

Dr. Robert Whinery, of Iowa City, has been elected president of the Johnson County Medical Society. Other Iowa City physicians elected were **R. Dale Liechty,** president-elect; **O. C. Beasley,** vice-president, and **T. R. Nicknish,** secretary-treasurer.

Deaths

Dr. Raymond J. Brink, 60, died of smoke inhalation in a fire at his home in Emmetsburg on January 15. A graduate of the Creighton University Medical School, Dr. Brink practiced medicine in Ayrshire before coming to Emmetsburg in 1956. He was a member of the Iowa Medical Society and the American Medical Association.

Dr. Frederick G. Murray, 95, died at Calvin Manor in Des Moines on January 1. Dr. Murray had practiced medicine in Cedar Rapids for almost 54 years until he retired in 1957. A graduate of Rush Medical College in Chicago, Dr. Murray had served as president of the Linn County Medical Society, the Iowa Union Medical Society, the Iowa Clinical Medical Society, and as first vice-president of the Iowa Medical Society. He was a member of the Spanish American War Veterans, the American Legion, Kiwanis Club, Iowa Medical Society and the American Medical Association.

Dr. Albert E. Johann, 82, of Des Moines, died at his home on January 2. Dr. Johann received the M.D. degree from Johns Hopkins University. Before his retirement in 1953, he was a vice-president and medical director of The Bankers Life Co. He was a life member of the Iowa Medical Society and the American Medical Association.

Dr. Raymond E. Cooper, 61, longtime Keokuk physician, died January 23. A graduate of the Creighton University School of Medicine, Dr. Cooper was chief of anesthesiology at both St. Joseph and Graham Hospitals in Keokuk. He was a charter member and past president of the Iowa Anesthesiology Society, a member of the Moose, and a member of the Iowa Medical Society and American Medical Association.

Dr. F. Harold Entz, of Waterloo, died January 8, 1971. A 1926 graduate of The U. of I. College of Medicine, Dr. Entz was a member of the Board of Urology; a Fellow in the American College of Surgeons; past president of North Central Section of AUA; staff member of St. Francis, Allen Memorial, Schoitz Memorial, and Sartori Hospitals; and a member of the Iowa Medical Society and American Medical Association.

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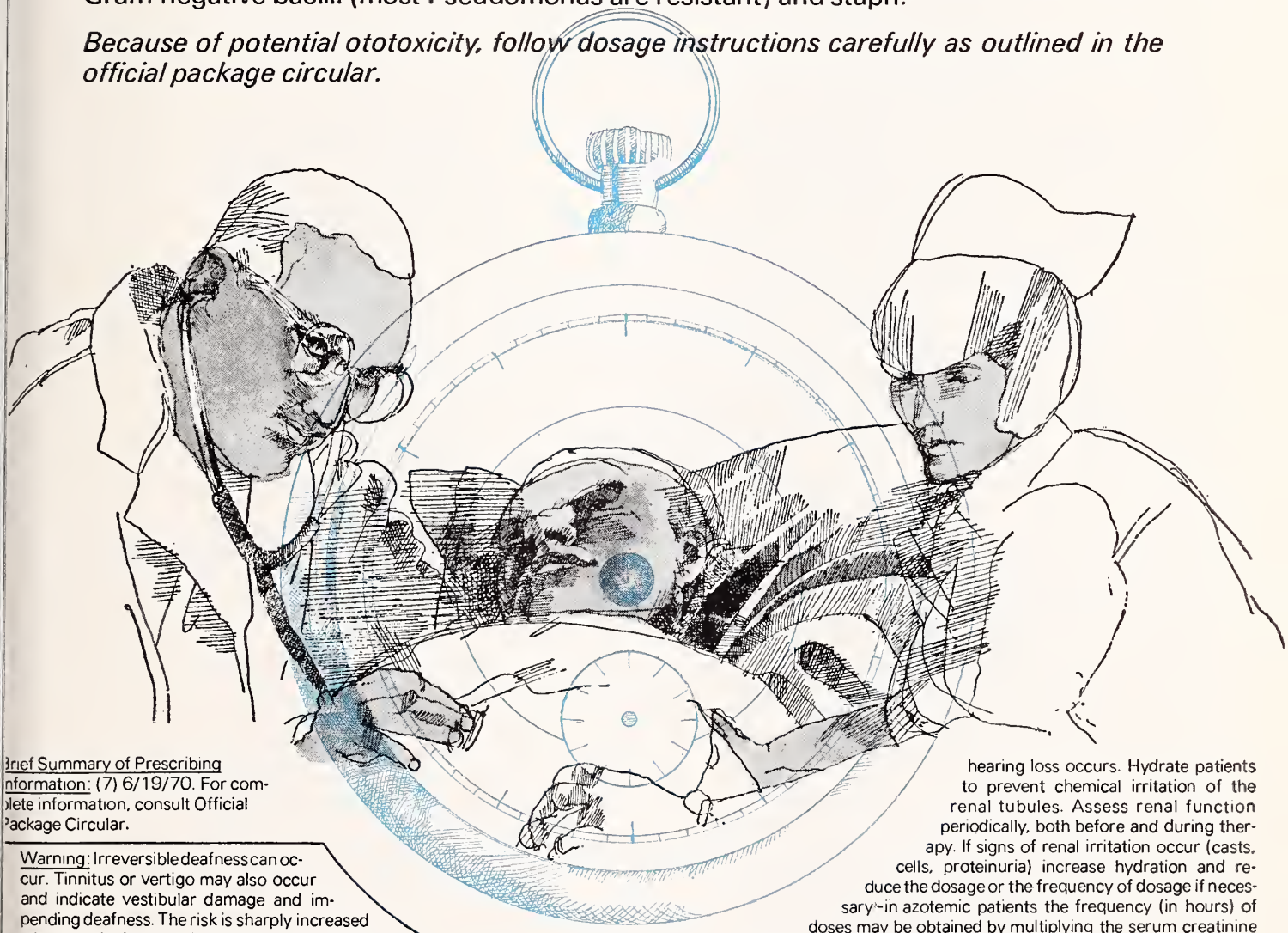

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Warning: Irreversible deafness can occur. Tinnitus or vertigo may also occur and indicate vestibular damage and impending deafness. The risk is sharply increased with renal dysfunction. In such cases, decrease size and frequency of doses. Discontinue kanamycin and check hearing if azotemia increases. Watch carefully for ototoxicity in older patients and patients receiving more than 15 Gm. of kanamycin. To avoid neuromuscular paralysis with respiratory depression, postpone intraperitoneal instillation in post-operative patients until recovery from anesthesia and muscle relaxants is complete. Avoid concurrent use of other ototoxic drugs including ethacrynic acid. Safety in pregnancy is not established.

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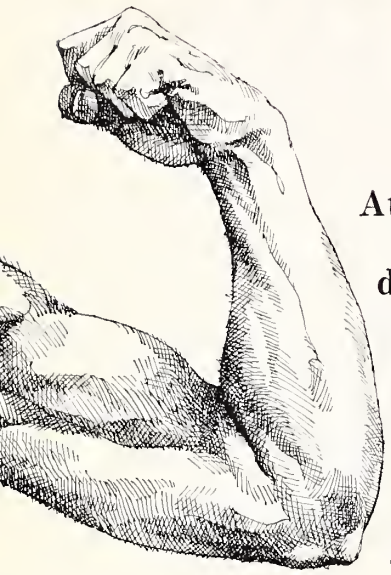
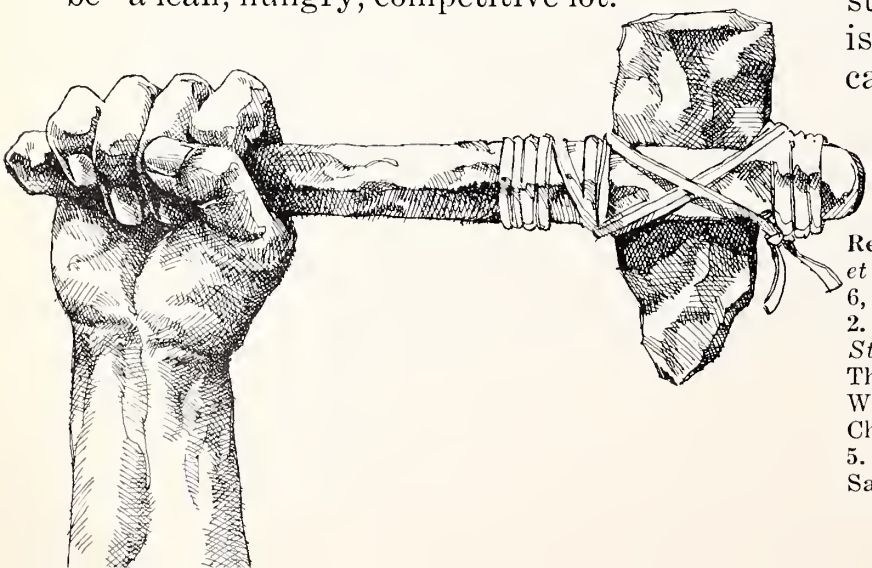
IF MORE MEN CRIED



At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]



Big boys don't cry. If more men cr maybe fewer would wind up with duode ulcers. But men will be men—the sum tota their genes and what t are taught. Schottsta observes that whe mother admonishes son who has hurt him that big boys don't cry, is teaching stoicism.[4] Crying is negation of everyth society thinks of as ma A boy starts defending manhood at an early a

Take away str you can take away sympto

There is no question that stress play role in the etiology of duodenal ul Alvarez[5] observes that many a man with ulcer loses his symptoms the day he shuts the office and starts out on a vacation. problem is, the type of man likely to have ulcer is the type least likely to take l vacations or take it easy at work.

The rest cure vs. the two-way actio Librax.® For most patients, the rest cur as unrealistic as it is desirable. Still, stress factor must be dealt with. And h is where the dual action of adjunctive Lib can help. Librax is the only drug that c

References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M et al. (eds.): *Harrison's Principles of Internal Medicin* 6, New York, McGraw-Hill Book Company, 1970, p. 2. Wolf, S., and Goodell, H. (eds.): *Harold G. W Stress and Disease*, ed. 2, Springfield, Ill., Charl Thomas, 1968, pp. 68-69. 3. *Ibid.*, p. 257. 4. Schottst W. W.: *Psychophysiologic Approach in Medical Pra* Chicago, Ill., The Year Book Publishers, Inc., 1960, p. 5. Alvarez, W. C.: *The Neuroses*, Philadelphia, Pa., Saunders Company, 1951, p. 384.

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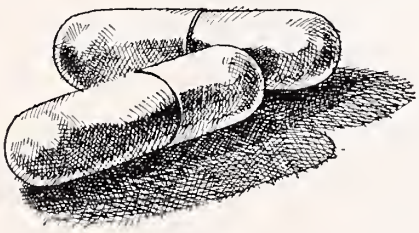

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Indications: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

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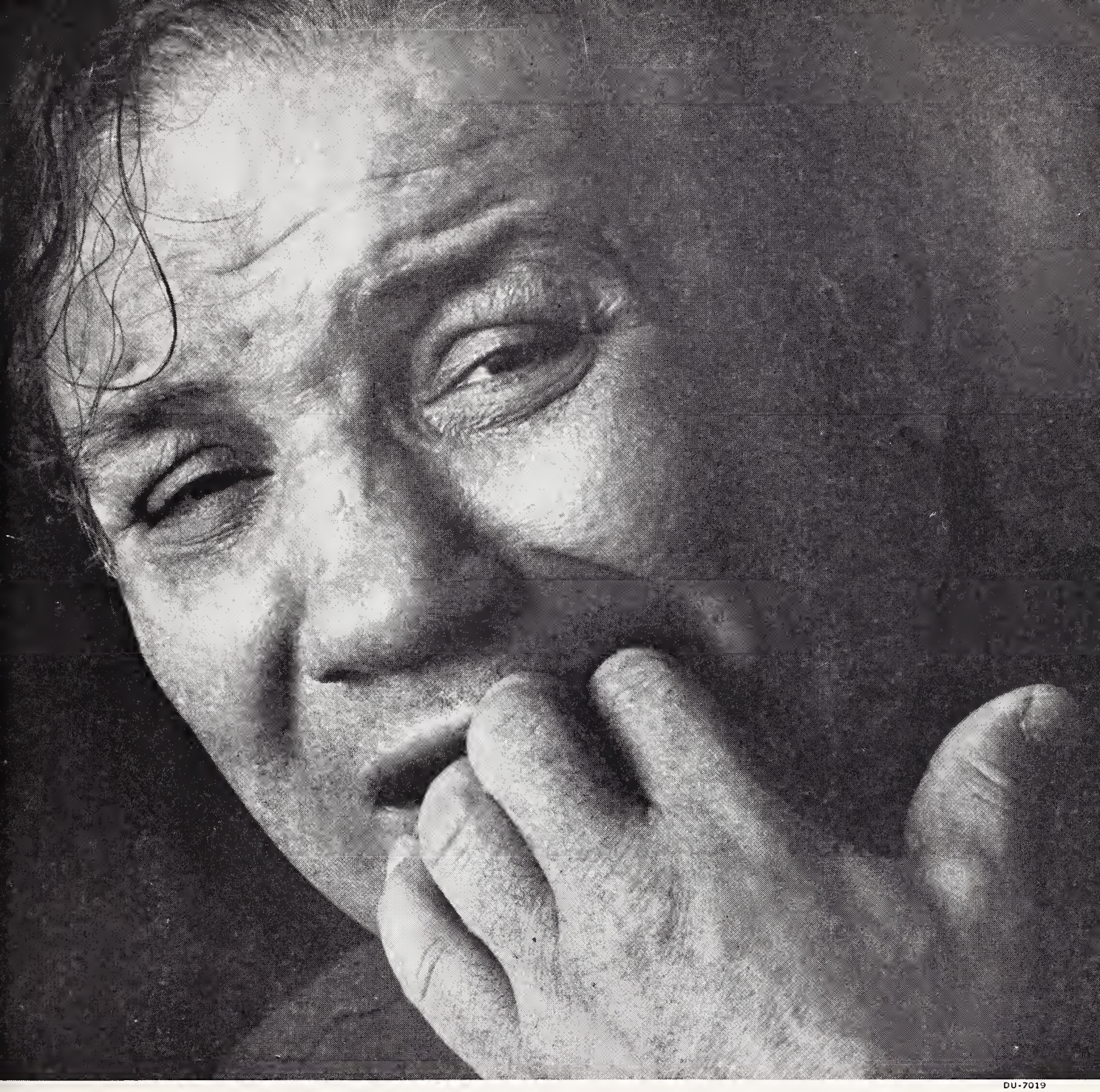

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the night shift of depression... insomnia

Depression is a 24-hour-a-day problem. And insomnia is often its nocturnal expression. In fact, insomnia may be a key symptom in establishing the diagnosis of depression.

ELAVIL HCl (Amitriptyline HCl, MSD) may prove quite helpful when you have arrived at such a diagnosis. Unlike psychic energizers or agents that merely elevate mood, ELAVIL HCl embodies a mild antianxiety action which manifests itself even before the fundamental antidepressant activity of the drug becomes evident. Daytime drowsiness occurs in some patients, usually within the first few days of therapy.

NOTE: Not recommended during the acute recovery phase following myocardial infarction. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Contraindications: Known hypersensitivity. Should not be given concomitantly with or within at least 14 days following the discontinuance of a monoamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl cautiously with gradual increase in dosage until optimum response is achieved. Not recommended during the acute recovery phase following myocardial infarction or for patients under 12 years of age.
Warnings: May block the antihypertensive action of guanethidine or similarly acting compounds. Should be used with caution in patients with a history of seizures or urinary retention, or with narrow-angle glaucoma or increased intraocular pressure. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. Safe use during pregnancy and lactation has not been established; in pregnant patients, nursing mothers, or women who may become pregnant, weigh possible benefits against possible hazards to mother and child.
Precautions: When used to treat the depressive component of schizophrenia, psychotic symptoms may be aggravated; in manic-depressive psychosis, depressed patients may experience a shift toward the manic phase, and paranoid delusions, with or without associated hostility, may be exaggerated; in any of these circumstances, it may be advisable to reduce the dose of amitriptyline HCl, or to use a major tranquilizing drug, such as perphenazine, concurrently. When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.
Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.
Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.
How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.
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when the diagnosis is depression

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IOWA MEDICAL MISCELLANY

Hottest health-related measure in the Iowa General Assembly as this is written is the physicians' assistants bill (SF 78). Proposal passed the Senate February 19 with no dissenting votes. It's now on the House calendar in a form acceptable to the Society. Bill entrusts principal supervision of the assistant to the Board of Medical Examiners.

• • •

Six chiropractic bills are among other legislative items currently under close scrutiny. (A mid-March Legislative Bulletin on chiropractic was sent to all IMS members.) Principal among these pending bills is (SF 271) which re-defines the practice of chiropractic. This proposal is similar to a measure referred back to committee last session. The Society strongly opposes this legislation. Another bill would require insurance payments for chiropractic services. A further proposal calls for acceptance of a national accreditation board examination (presumably one by the National Board of Chiropractic Examiners) in lieu of the Iowa Basic Science Exam. Two other bills have to do with chiropractic advertising.

• • •

Introduced in late-February and referred to the Senate Commerce Committee is SF 239, designated the Comprehensive Health Care bill. This ominous proposal would clear the way for the now-illegal corporate practice of medicine in Iowa. The bill authorizes the Insurance Commissioner to sanction "health care corporations" to provide "comprehensive health care" in accordance with a "health care plan." Measure threatens several time-honored IMS principles (fee-for-service and free-choice-of-physician).

• • •

Senate passage in early March of a bill to make a non-physician State Commissioner of Health was strongly discouraged by the IMS. Still to be considered in the House, the measure was called to the attention of member physicians in a Legislative Bulletin which asked that Representatives be urged to reject it.

Iowa ranks a respectable 8th in the nation in the ratio of persons to medical and osteopathic physicians (841 to 1), according to a health manpower resources study just completed by the Health Economics Research Center at The University of Iowa. Other Iowa rankings: 7th in dentists (1,781 to 1), 3rd in pharmacists (1,553 to 1), 2nd in nurses (278 to 1) and 3rd in short-term hospital beds (191 to 1). Nationally, there are 681 persons for each physician. Number of Iowa medical and osteopathic physicians, according to the study, was 3,237 in 1960, 3,303 in 1965 and 3,298 in 1967.

• • •

The Iowa Region of the American College of Physicians will meet May 8 at Eddie Webster's Restaurant in West Des Moines. Meeting is scheduled in conjunction with a session of Iowa Clinical Society of Internal Medicine. Atlee B. Hendricks, M.D., Davenport, ACP Governor of Iowa, has appointed the following physicians to a Governor's Advisory Committee: J. S. McQuiston, Cedar Rapids; J. I. Knott, Council Bluffs; E. A. Motto, Davenport; E. J. Hertko, Des Moines; J. E. Kelsey, Des Moines; R. V. McKay, Dubuque; W. R. Wilson, Iowa City; R. O. Bailey, Waterloo; L. J. Dimsdale, Sioux City, and L. W. Swanson, Mason City. Drs. Hertko and Kelsey are in charge of the May meeting.

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The 1971 Handbook for the House of Delegates was mailed in March to IMS delegates for their review in advance of the Annual Meeting. The Handbook contains summary reports from approximately 50 committees, councils, etc., of the Society.

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End of winter note: The Sioux County Board of Supervisors has purchased four emergency sleds (sno-cruiser emergency units) for use by hospitals in the county. Volunteer snowmobile operators will tow the sleds on emergency runs when winter comes again.

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The Scanlon Medical Foundation/Iowa Medical Society will award three savings bonds to winners of a statewide high school essay writing contest on subject of employing the handicapped. The contest is a project of the Governor's Committee on Employment of the Handicapped.

• • •

Another youth education event involving the Iowa Medical Society occurs this month (April 2 and 3) at the Veterans Memorial Auditorium in Des Moines. The 1971 Hawkeye Science Fair will provide the opportunity for some 600 young Iowans to display their scientific prowess. IMS sponsors the Fair with Drake University and DES MOINES REGISTER AND TRIBUNE.

Four recommendations of the Society's Drug Abuse Committee have been endorsed by the Executive Council. These (1) encourage physicians to be active in local drug abuse education program; (2) call for strong IMS support of methadone maintenance in the treatment and rehabilitation of the narcotic addict; (3) advocate establishment of treatment centers (for methadone maintenance) for hard drug users at appropriate existing facilities in Des Moines, Iowa City, Cherokee, Independence and Davenport, with eventual development of a central state treatment facility, and (4) urge use of community mental health centers, or other similar existing facilities, for treating soft drug users.

• • •

Proposed Articles and By-Laws for the Iowa Foundation for Medical Care, which are to be considered by the House of Delegates in April, appear on page 195 of this issue of the JOURNAL.

• • •

Statewide survey to determine five-year malpractice experience of Iowa physicians has been mailed to all IMS members. Hope is that survey will produce useful information to fortify discussions with professional liability carriers. Member physicians are urged to complete and return the anonymous survey form.

Informational mailing on subject of alcoholism is on its way to Iowa physicians. A project of the Society's Committee on Alcoholism, the mailing will include material from AMA, AA and the Iowa State Commission on Alcoholism.

• • •

In a report approved by the Society's Executive Council, the Committee on Public Assistance suggests the State Department of Social Services (1) notify a doctor when a Medicaid patient is receiving more than 10 different drugs, (2) advise the doctor when his Medicaid patient has received the same prescription three or more times per month, and (3) request pharmacists to inform doctors when either or both of these guidelines are exceeded. The Committee prefers this attempt at Medicaid drug economy over a program (formulary) to limit the number of drugs.

• • •

The IMS is continuing to encourage a student medical society at The U. of I. College of Medicine in line with action of the 1970 House of Delegates authorizing formation of such a body. Medical student representatives will be invited to the Executive Council and Annual Meeting in April.

• • •

Next meetings of IMS Board of Trustees, Judicial Council and Executive Council will be April 7-8.

★

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President's Page

Concluding words are always difficult to write. Recounting a stewardship is easily overdone. Expressing thanks is most essential. Recognizing success and failure is valuable perhaps as a stepping stone to the future.

These few sentences represent my final official writing as Society president and climax more than a decade of organizational work in medicine. It has been challenging and rewarding. I trust the following thought may have some applicability to the past year:

"What a man does for himself dies with him, what a man does for his country lives forever."

President

IOWA FOUNDATION FOR MEDICAL CARE

PROPOSED ARTICLES OF INCORPORATION

On January 24, in Special Session, the House of Delegates of the Iowa Medical Society authorized an Iowa Foundation for Medical Care. In taking this action, the House authorized the preparation of organizational documents for review and ratification at the 1971 Annual Meeting. This meeting will occur April 25 to 28 in Des Moines. Provided here for review by the membership in advance of the Annual Meeting are the proposed Articles of Incorporation and By-Laws for the Foundation.

The undersigned incorporators of a corporation organized under the Iowa Nonprofit Corporation Act do hereby adopt the following Articles of Incorporation for such corporation:

ARTICLE I

The name of this corporation shall be IOWA FOUNDATION FOR MEDICAL CARE.

ARTICLE II

The corporation is being organized and shall be operated exclusively for the following purposes:

A. To develop, promote and encourage the distribution of quality medical services to those served at an equitable cost and in appropriate quantity.

B. To foster freedom of choice to both physician and patient.

C. To advance the art of medicine, the physician-patient relationship and the fundamental concept of fee-for-service medicine.

D. To study objectively the strengths and weaknesses of the medical care delivery system in the State of Iowa and work toward upgrading any deficiencies which may be found therein.

E. To promote, develop and foster the availability of high quality health care, either alone, or in conjunction with individuals, physicians, medical societies, other professional organizations representing persons engaged in health care, hospitals, nursing homes, schools, the various branches of government, the insurance industry, representatives of management and labor and other interested persons, organizations or institutions.

F. To become a mechanism for and assist in establishing definite health care criteria for comprehensive health care programs.

G. To promote, develop, operate and organize peer review activities providing objectivity in dealing with health costs and utilization of services encompassing the total health needs of patients and by this peer review mechanism to assure the public of optimum use of its health care expenditures.

H. To promote, foster and coordinate the involvement of the health professions in experimentation and evaluation of programs aimed at relieving acute manpower shortages, in improving the availability of preventive services and in expanding the availability of ambulatory care as an alternative to institutional services and, in connection therewith, to disseminate the results to individuals, physicians, hospitals, schools, foundations, institutions, governmental bodies, corporations and the general public.

I. To disseminate information to, and educate, its members, and the general public, with respect to the foregoing objectives and all aspects thereof.

J. To make available the organization's reviewing and consultative services to any governmental or private health care program desiring them.

K. To advance the science of medicine and work toward the broad goal of protection and preservation of the public health.

ARTICLE III

The address of the corporation's initial registered office shall be 1001 Grand Avenue, West Des Moines, Iowa, and its initial registered agent at such address shall be Donald L. Taylor.

ARTICLE IV

The affairs of the corporation shall be managed by a Board of Directors. The initial Board of Directors shall consist of eight members whose names and addresses are as follows:

John H. Sunderbruch, Davenport, Iowa
Lyal J. O'Brien, Fort Dodge, Iowa
Hal R. Hireleman, Cedar Rapids, Iowa
Verne L. Schlaser, Des Moines, Iowa
Thomas A. Burcham, Des Moines, Iowa
Kenneth E. Lister, Ottumwa, Iowa
Ralph L. Wicks, Boone, Iowa
Jerome F. Paulson, Mason City, Iowa

ARTICLE V

No part of the net earnings of this corporation shall inure to the benefit of or be distributable to its members, officers, or other persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article II herein.

ARTICLE VI

Upon the dissolution of the corporation the Board of Directors shall, after paying or making provision for the payment of all the liabilities of the corporation, dispose of all the assets of the corporation exclusively for the purposes of the corporation in such manner, or to such organization or organizations as shall at any time qualify as an exempt organization or organizations under Section 501(c)(3) or 501(c)(6) of the Internal Revenue Code of 1954 (or the corresponding provisions of any future United States Internal Revenue Law), as the Board of Directors shall determine.

ARTICLE VII

This corporation shall have the powers granted to it by Section 504A.4 of the Iowa Nonprofit Corporation Act except nothing therein shall be construed as empowering the corporation to engage in a regular business of a kind ordinarily carried on for profit, or to engage in profit making activities.

ARTICLE VIII

The names and addresses of the initial incorporators are as follows:

John H. Sunderbruch, Davenport, Iowa
Lyal J. O'Brien, Fort Dodge, Iowa
Hal R. Hirleman, Cedar Rapids, Iowa
Verne L. Schlaser, Des Moines, Iowa
Thomas A. Burcham, Des Moines, Iowa
Kenneth E. Lister, Ottumwa, Iowa
Ralph L. Wicks, Boone, Iowa
Jerome F. Paulson, Mason City, Iowa

IN WITNESS WHEREOF, the aforesaid incorporators have caused the execution of the foregoing Articles of Incorporation, this .... day of ....., 1971.

PROPOSED BYLAWS

ARTICLE ONE
OFFICES

The principal office of the corporation in the State of Iowa shall be located in West Des Moines, Polk County. The corporation may have such other offices, within or without the State of Iowa as the business of the corporation may require from time to time.

The registered office of the corporation required by the Iowa Nonprofit Corporation Act shall be continuously maintained in Iowa and shall be initially as provided in the Articles of Incorporation subject to change from time to time by resolution of the Board of Directors and filing of a statement of said change as required by the Iowa Nonprofit Corporation Act.

ARTICLE TWO
MEMBERSHIP

SECTION 1. Any physician who is a member of, or eligible for membership in, the Iowa Medical Society shall be eligible for membership in this corporation and may after application to, and approval of, the Board of Directors become a member. The official roster of members shall be maintained at all times by the Secretary of the corporation in the office of the corporation. Registration of a member upon the official roster shall be prima facie evidence of his membership and his right to the privileges inherent in that membership.

SECTION 2. All members of the corporation shall be privileged to attend all sessions of any annual or special meeting except as set forth hereinafter. They may participate in all meetings except as elsewhere prohibited in these Bylaws.

SECTION 3. Each member of the corporation shall have one vote on or in respect of any matter on which members of the corporation have the right to vote.

SECTION 4. The Board of Directors may terminate the membership of any member for a violation of any provisions of the Articles of Incorporation, these Bylaws, any rules or regulations adopted by the Board of Directors, or for unprofessional conduct on the part of a physician member, or where the physician member has lost his license to practice medicine in the State of Iowa.

No membership shall be terminated by the Board of Directors until the member affected has been granted a hearing, or opportunity for hearing, before the Board.

ARTICLE THREE
MEETINGS OF THE MEMBERS

SECTION 1. ANNUAL MEETING. The annual meeting of the members shall be held on such date as the Board of Directors shall by resolution specify within a period commencing on July 1 and ending on August 15 in each year, beginning with 1971.

At each annual meeting, the election of three directors shall take place, and such other business shall be transacted as may be properly presented to the meeting.

SECTION 2. SPECIAL MEETINGS. Special meetings of the members may be called by the

President, by the Board of Directors, or by not less than one-tenth of the number of all of the members entitled to vote at the meeting.

SECTION 3. PLACE OF MEETING. The Board of Directors may designate any place, either within or without the State of Iowa, as the place of meeting for any annual meeting or for any special meeting called by the Board of Directors. If no designation is made, or if a special meeting be otherwise called, the place of meeting shall be the registered office of the corporation in the State of Iowa.

SECTION 4. NOTICE OF MEETING. Written or printed notice stating the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be delivered not less than ten or more than fifty days before the date of the meeting, either personally or by mail, by or at the direction of the President, the Secretary, or the officer or persons calling the meeting, to each member entitled to vote at such meeting. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, addressed to the member at his address as it appears on the membership roster, with postage thereon prepaid.

SECTION 5. QUORUM OF MEMBERS. Eight members entitled to vote shall constitute a quorum at a meeting of the members. If a quorum is present, the affirmative vote of the majority of the members present at the meeting and entitled to vote on the subject matter shall be the act of the members, unless the vote of a greater number is required by the Iowa Nonprofit Corporation Act, the Articles of Incorporation or the Bylaws.

SECTION 6. INFORMAL ACTION BY MEMBERS. Any action required by the Iowa Nonprofit Corporation Act to be taken at a meeting of the members, or any action which may be taken at a meeting of members, may be taken without a meeting if a consent in writing setting forth the action so taken, shall be signed by all the members entitled to vote with respect to the subject matter thereof.

SECTION 7. VOTING BY BALLOT. Voting on any question or in any election may be viva voce unless the presiding officer shall order or any member shall demand that voting be by ballot.

ARTICLE FOUR
DIRECTORS

SECTION 1. The President, President-Elect, Vice President, Secretary, Treasurer and the three elected Trustees of the Iowa Medical Society shall serve ex officio as directors. Their terms shall be concurrent with their terms as officers and Trustees, respectively, of the Iowa Medical Society. In addition to the foregoing directors, the members shall each year elect three directors who shall serve for a term of one year or until their successors are elected and installed in office. All directors shall at all times be members of this corporation.

SECTION 2. The business and affairs of the corporation shall be managed by its Board of Directors.

SECTION 3. A regular meeting of the Board of Directors shall be held without other notice than this Bylaw, immediately after, and at the same place as, the annual meeting of the members of this corporation. The Board of Directors may provide by resolution the time and place, either within or without the State of Iowa, for the holding of additional regular meetings without other notice than such resolution.

SECTION 4. Special meetings of the Board of Directors may be called by or at the request of the President, or any three directors. The person or persons authorized to call special meetings of the Board of Directors may fix any place, either within or without the State of Iowa, as the place for holding any special meeting of the Board of Directors called by him or them.

SECTION 5. Notice of any special meeting shall be given at least three days previous thereto by written notice delivered personally or mailed to each director at his business address, or by telegram. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail, so addressed and postage prepaid. If notice be given by telegram, such notice shall be deemed to be delivered when the telegram is delivered to the telegraph company. The attendance of a director at any meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

SECTION 6. QUORUM. A majority of the number of directors fixed by these Bylaws shall constitute a quorum for the transaction of business; provided, that if less than a majority of such number of directors is present at said meeting, a majority of the directors present may adjourn the meeting from time to time without further notice.

SECTION 7. MANNER OF ACTING. The act of the majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors except to the extent otherwise provided in the Articles of Incorporation.

SECTION 8. VACANCIES. Any vacancy occurring in the Board of Directors may be filled by the affirmative vote of a majority of the remaining directors though less than a quorum of the Board of Directors. A director elected to fill a vacancy

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Brief Summary

Indications

Erythrocin is indicated against gram-positive cocci — staphylococci (most strains), pneumococci and streptococci (including enterococci). Active against other pathogens, such as *Corynebacterium, Hemophilus, Clostridium, Neisseria,* and *Treponema pallidum,* the agents causing trachoma and lymphogranuloma venereum and primary atypical pneumonia caused by *Mycoplasma pneumoniae* (Eaton agent). Establish susceptibility of pathogenic organism when practical. Maintain therapeutic levels for ten days in the treatment of streptococcal infections to help prevent rheumatic fever and glomerulonephritis. Also consider local measures or surgery whenever indicated.

Contraindications

Known hypersensitivity to erythromycin. I.M. preparation also contraindicated in patients hypersensitive to the "caine" type of local anesthetics.

Precautions, Side Effects

Occasionally abdominal discomfort, cramping, nausea or vomiting may occur; generally controlled by reduction of dosage. Mild allergic reactions, such as urticaria and other skin rashes, may occur. Serious allergic reactions have been extremely infrequent; if hypersensitivity is encountered consider appropriate countermeasures, e.g., epinephrine, steroids, etc., and withdraw drug. The rare possibility of overgrowth of nonsusceptible organisms should be kept in mind; if it occurs withdraw drug and institute appropriate treatment. Local venous discomfort, generally mild, may occur with I. V. administration. I.M. preparation is suitable for deep intramuscular administration only; restrict use in children with small muscle mass. A mild transient local discomfort sometimes occurs following rectal insertion of Erythrocin Suppositories; discontinue if significant discomfort persists.

Administration and Dosage

I. ORAL: In adults with mild to moderate infections caused by readily-susceptible organisms 1.0 Gm. daily; more severe infections or those caused by less susceptible organisms 2.0 Grams daily; unusually severe infections up to 4 or more Gm./day. Daily dose in children is 15 to 25 mg./lb./day depending upon severity of infection. Daily dose should be administered in divided doses at 4-to-6 hour intervals. Continue treatment for at least 48 hours after symptoms have subsided and temperature has returned to normal. In fulminating or life-threatening infections, a parenteral form of erythromycin is preferred.

II. PARENTERAL: Intravenous administration may be continuous or intermittent (6 to 8 hour intervals); 1 to 4 Gm. daily in adults; 15 to 25 mg./lb./day in children, depending upon severity of infection. Recommended I.M. dose is 100 mg. (2 ml.) for adults, 50 mg. (1 ml.) for children 30 lbs. or more and 1.4 to 1.8 mg./lb. in smaller children. Injections are usually given at 6 to 8 hour intervals; may be given at 4 to 6 hour intervals for severe infections.

III. RECTAL: Following therapeutic doses are recommended in children: to 20 lbs., 1-125 mg. suppository every 8 hours; 20 to 40 lbs., 1-125 mg. suppository every 6 hours.

Change to oral therapy as soon as practicable.

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shall be elected for the unexpired term of his predecessor in office, if any.

SECTION 9. PRESUMPTION OF ASSENT. A director of the corporation who is present at a meeting of its Board of Directors at which action on any corporate matter is taken shall be presumed to have assented to the action taken unless his dissent shall be entered in the minutes of the meeting or unless he shall file his written dissent to such action with the person acting as Secretary of the meeting before the adjournment thereof, or shall forward such dissent by registered or certified mail to the Secretary of the corporation immediately after the adjournment of the meeting. This right to dissent shall not apply to a director who voted in favor of such action.

SECTION 10. INFORMAL ACTION BY DIRECTORS. Any action required by the Iowa Nonprofit Corporation Act to be taken at a meeting of directors of the corporation, or any action which may be taken at a meeting of the directors or of a committee of directors, may be taken without a meeting if a consent in writing setting forth the action so taken, shall be signed by all of the directors or all of the members of the committee of directors, as the case may be.

ARTICLE FIVE
OFFICERS

SECTION 1. NUMBER. The officers of the corporation shall consist of a President, one or more Vice Presidents, a Secretary and a Treasurer, and such other officers as may be elected or appointed by the Board of Directors. Any two or more offices may be held by the same person. Officers shall be members of the corporation.

SECTION 2. ELECTION AND TERM OF OFFICE. The officers of the corporation shall be elected annually by the Board of Directors at the first meeting of the Board of Directors held after each annual meeting of members. If the election of officers shall not be held at such meeting, such election shall be held as soon thereafter as conveniently may be. Vacancies may be filled or new offices created and filled at any meeting of the Board of Directors. Each officer shall hold office until his successor shall have been duly elected or qualified or until his death or until he shall resign or shall have been removed in the manner hereinafter provided. Election or appointment of an officer or agent shall not of itself create contract rights.

SECTION 3. REMOVAL. Any officer or agent may be removed by the Board of Directors whenever in its judgment the best interests of the corporation will be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person so removed.

SECTION 4. VACANCIES. A vacancy in any office because of death, resignation, removal, disqualification or otherwise, may be filled by the Board of Directors for the unexpired portion of the term.

SECTION 5. THE PRESIDENT. The President shall be the principal executive officer of the corporation and shall in general supervise and control all of the business and affairs of the corporation, subject to the general powers of the Board of Directors. He shall preside at all meetings of the members and of the Board of Directors. He may sign, with the Secretary or any other proper officer of the corporation thereunto authorized by the Board of Directors, deeds, mortgages, bonds, contracts or other instruments which the Board of Directors has authorized to be executed, except in cases where the signing and execution thereof shall be expressly delegated by the Board of Directors or by these Bylaws to some other officer or agent of the corporation, or shall be required by law to be otherwise signed or executed. In general, he shall perform all duties incident to the office of President and such other duties as may be prescribed by the Board of Directors from time to time.

SECTION 6. THE VICE PRESIDENT(S). In the absence of the President or in the event of his inability or refusal to act, the Vice President (or in the event there be more than one Vice President, the Vice Presidents in the order designated, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. Any Vice President shall perform such other duties as from time to time may be assigned to him by the President or by the Board of Directors.

SECTION 7. THE TREASURER. If required by the Board of Directors, the Treasurer shall give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the Board of Directors shall determine. He shall have charge and custody of and be responsible for all funds and securities of the corporation; receive and give receipts for moneys due and payable to the corporation; and deposit all such moneys in the name of the corporation in such banks, trust companies or other depositaries as shall be selected in accordance with the provisions of Article Five of these Bylaws. He shall in general perform all duties incident to the office of Treasurer and such other duties as from time to time may be assigned to him by the President or by the Board of Directors.

SECTION 8. THE SECRETARY. The Secretary shall keep the minutes of the shareholders and of the Board of Directors meetings in one or more books provided for that purpose; see that all notices are duly given in accordance with the provisions of these Bylaws or as required by law;

be custodian of the corporate records; keep a register of the post office address of each member which shall be furnished to the Secretary by such member; and in general perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the President or by the Board of Directors.

SECTION 9. EXECUTIVE AND ADMINISTRATIVE PERSONNEL. The Board of Directors shall employ such executive and administrative personnel as it shall from time to time determine, provided, however, that the principal staff officer of the Iowa Medical Society shall, subject to the approval of the Trustees of Iowa Medical Society, serve as the principal staff officer of this corporation, with or without compensation. Such personnel need not be members of the corporation. The Board of Directors shall fix their salaries, other terms of compensation, and other terms of employment, and shall from time to time determine the titles by which such personnel are to be known.

ARTICLE SIX
CONTRACTS, LOANS, CHECKS AND DEPOSITS

SECTION 1. CONTRACTS. The Board of Directors may authorize any officer or officers, or agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the corporation, and such authority may be general or confined to specific instances.

SECTION 2. LOANS. No loans shall be contracted on behalf of the corporation and no evidence of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

SECTION 3. CHECKS, DRAFTS, ETC. All checks, drafts, or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the corporation, shall be signed by such officer or officers, agent or agents of the corporation, and in such manner as shall from time to time be determined by resolution of the Board of Directors.

SECTION 4. DEPOSITS. All funds of the corporation not otherwise employed shall be deposited from time to time to the credit of the corporation in such banks, trust companies, or other depositaries as the Board of Directors may select.

ARTICLE SEVEN
COMMITTEES

SECTION 1. NOMINATING COMMITTEE. The President, with the advice and consent of the Board of Directors, shall appoint from the directors a nominating committee consisting of five of said directors. The nominating committee shall submit the names of one or more members of this corporation as candidates for each of the three directors to be elected at the annual meeting.

SECTION 2. OTHER COMMITTEES. The President shall, by and with the advice and consent of the Board of Directors, appoint all committees not otherwise provided for, and shall be, ex officio, a member of all committees appointed by him. He may assign to such committees any powers and duties not in conflict with these Articles and Bylaws, provided that the terms of such committees shall not extend beyond the next ensuing annual meeting unless continued by order of the Board of Directors.

ARTICLE EIGHT
FISCAL YEAR

The fiscal year of the corporation shall begin on the first day of January in each year and shall end on the last day of December in each year.

ARTICLE NINE
DUES

The annual per capita dues to be charged against the members of the corporation shall be $10 per year unless otherwise determined by the Board of Directors. Per capita special dues against the members in lieu of, or in addition to, annual dues, may be fixed at any time by the Board of Directors in the event of financial emergency. Dues shall be payable to the Treasurer and shall be held by the Treasurer in accordance with the terms of his office.

ARTICLE TEN
RULES OF ORDER

Except as otherwise provided for in the Articles of Incorporation or Bylaws of this corporation, the then current edition of ROBERT'S RULES OF ORDER shall govern the proceedings of all meetings of the membership and the Board of Directors of this corporation.

ARTICLE ELEVEN
WAIVER OF NOTICE

Whenever any notice is required to be given to any member or director of the corporation under the provisions of the Iowa Nonprofit Corporation Act, or under the provisions of the Articles of Incorporation or Bylaws of the corporation, a waiver thereof in writing signed by the person or persons entitled to this notice, whether before or after the time stated therein, shall be equivalent to the giving of such notice.

ARTICLE TWELVE
AMENDMENTS

These Bylaws may be altered, amended or repealed and new Bylaws may be adopted at any meeting of the Board of Directors by a two-thirds vote of the directors then in office.

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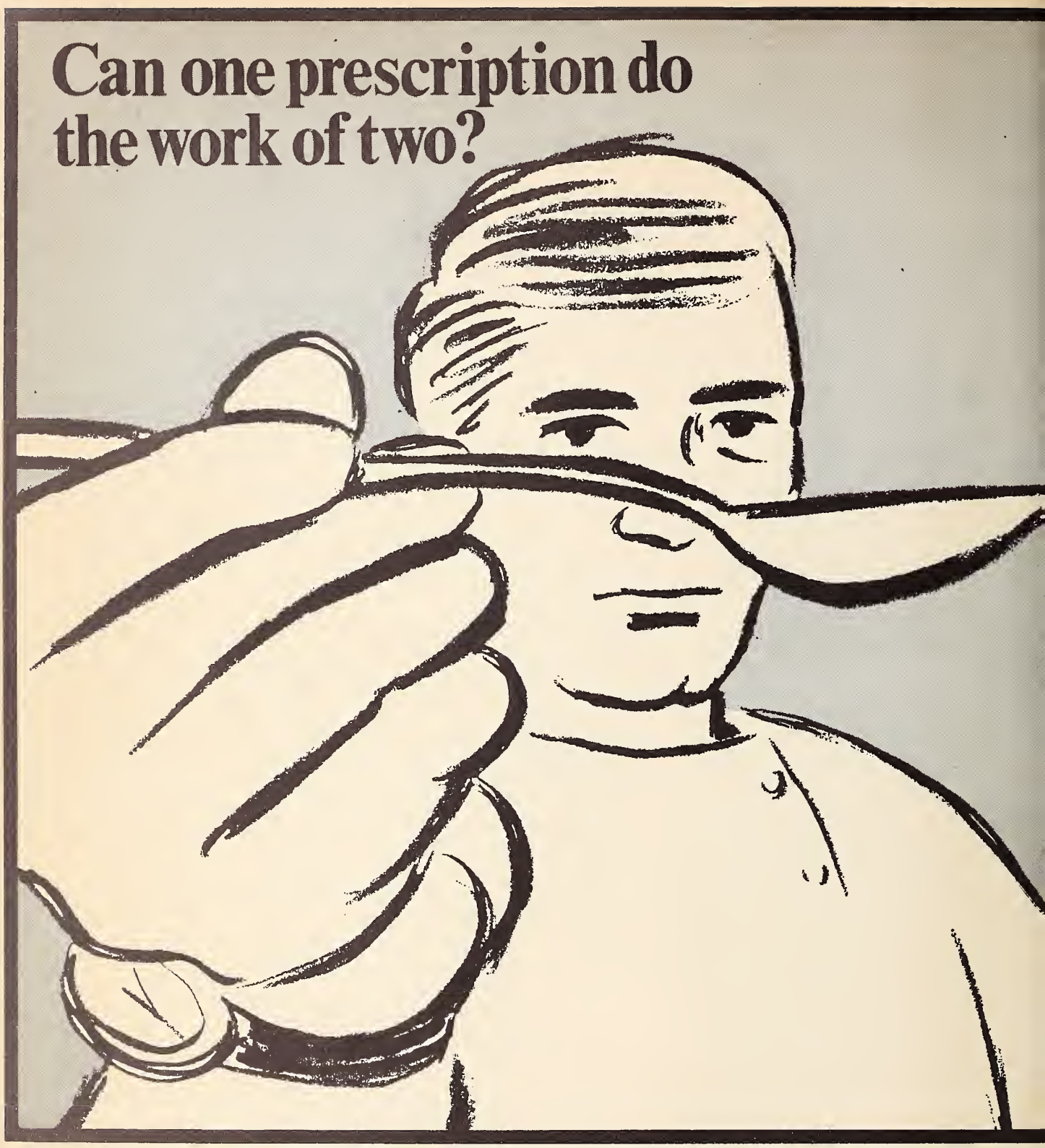

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Greetings from the Office of the Dean

Dear Colleagues:

I am sincerely pleased to have this opportunity to extend greetings from the College of Medicine and the University. This past Centennial Year has been an active one for the College. We have filled vacant headships in major teaching departments with outstanding people. Our new medical curriculum is being implemented. Plans are underway for new and expanded training programs in allied health fields including the training of physicians' assistants. Plans are being completed for the operation of a model rural health clinic to be located at Oakdale. The program in renal transplantation under the joint auspices of the University Hospitals, the Veterans Administration Hospital and the College has been highly successful. A new Department of Family Practice has been established. Our continuing education programs have been extended. We are particularly pleased with the rapid development of our affiliation with Broadlawns Hospital in Des Moines. The College has made progress despite financial stringencies, and I wish to thank the physicians of Iowa for the support they have provided for many of our undertakings.

In October I outlined the elements of a new medical education program for Iowa. This program includes more medical graduates, a new curriculum for medical students, formalized externships, new Departments of Family Practice and Community Medicine, model clinics, expansion of teaching efforts in allied health fields, expansion of continuing education, and educational affiliations with community hospitals.

I would like to comment briefly and in general terms about one element of this broad program. I refer to the role of the University Medical Center, which is made up of the College of Medicine and the University Hospitals, and the role of the Community Medical Education Center, which is structured around one or more community hospitals affiliated for educational purposes with the College of Medicine. The terms used here are somewhat analogous to those contained in the report released recently by the Carnegie Commission on Higher Education.

JOHN W. ECKSTEIN, M.D.

The University Center can provide training in the sciences and clinical medicine in a setting in which the interdependence of clinical medicine and the sciences basic to medicine can be emphasized. It can offer highly specialized clinical training for residents, special facilities and forms of treatment and specialized programs of continuing education for practicing physicians.

The Community Center can provide the clinical setting for training medical students and residents in an environment similar to that in which the majority of physicians eventually practice. The Community Center offers the opportunity for physicians based in the community to participate in teaching programs, and it can provide the environment for stimu-

lating continuing education activities for practitioners on a day-to-day basis.

I would envision five or six Community Centers distributed strategically throughout the State. The Centers would be based in existing hospitals with opportunities for educational experiences in offices or clinics of practitioners or groups of practitioners wishing to participate. Two or three faculty members from the College of Medicine would be assigned full-time to each Community Center. Other faculty members from the college would visit at intervals to assist in special clinics and other teaching exercises. Perhaps 10 to 15 medical students and 3 to 6 residents in Family Practice and other specialties could be assigned to each Center.

Community Medical Education Centers, such as those described here, operating in close affiliation with the University Medical Center, should make it possible to train many more students and residents at a much lower cost than that required to build and staff new facilities. A Community Center should create a professional environment and continuing education opportunities and thus attract physicians to practice in surrounding areas. It could also serve as a base for training other health professionals including physicians' assistants under University auspices and standards. The Center would have all the benefits of an affiliation with a major University including possibilities for interacting with other colleges and departments.

A program such as this will require more dollars. It is, however, a positive program aimed at providing solutions to many of our problems. I hope that it will be possible in the future for the State to appropriate funds for such ventures.

Sincerely yours,

JOHN W. ECKSTEIN, M.D.
Dean

Kingery Retires, Served Polk County 41 Years

On March 29 in 1930 Edwin M. Kingery began his career as a medical society executive for the physicians of Polk County. Forty-one years later, almost to the day, Mr. Kingery concludes his service to the doctors of Des Moines.

EDWIN M. KINGERY

As he enters retirement this month, Mr. Kingery stands as one of three or four men in the country whose service to a medical society exceeds 40 years.

Kingery is native of Orient, Iowa, and a graduate of Grinnell College. President of the Student Council and Senior Class and a varsity football player at Grinnell, Kingery worked as a student actuary for The Bankers Life from 1924 until his employment by the Polk County Medical Society.

From July 1945 to February 1947 Kingery was loaned to Blue Shield and served on a half-time basis as executive secretary of the then new organization.

The Iowa Medical Society presented its John F. Sanford Award to Kingery in 1959. Kingery helped to found and is a charter member of the Medical Society Executives Association (now the American Association of Medical Society Executives). He has served in various leadership capacities with this organization.

Kingery has been and is active in various community organizations including the Chamber of Commerce, Masonic Lodge, Shrine, Better Business Bureau, Community Planning Council and Plymouth Church.

Kingery and his wife have two married sons and three grandchildren. He lives at 5812 Kingman Blvd., Des Moines.

Ted Sloma, executive secretary of the Polk County TB and RD Association, has been appointed to succeed Kingery. Kingery will serve as a consultant to the Polk County Society for an indefinite period.

Kingery was honored by the physicians of Polk County at a special dinner March 17. Ernest B. Howard, M.D., Executive Vice President, American Medical Association, was the guest speaker.

Thanks to Preceptors

The University of Iowa College of Medicine wishes to extend its sincere thanks to those Iowa physicians who contributed to its educational effort by serving as preceptors during the 1969-70 academic year.

These physicians have given generously of their time, effort and funds in providing senior medical students an opportunity to fulfill their curricular requirement for a preceptorship. This program is aimed at letting students become acquainted with the practice of medicine away from the academic medical center. It provides the opportunity for the student to see how an office is operated and to observe the kinds of relationships a practicing physician has with his patients, his office personnel, his colleagues, his family and his community. And of course, important medical knowledge, skill and attitudes also accrue to the student.

In his capacity as preceptor, the physician has the satisfaction of teaching and contributing to medical education; he also benefits educationally from this close association with the young and eager medical student. Judging by the expressed reactions of the preceptors and the students, this particular experience is highly regarded.

The medical students and The U. of I. College of Medicine are indeed grateful to the physicians named below for participating in the Preceptor Program.

Clinton L. Anderson, M.D., Iowa City
John M. Baker, M.D., Mason City
Charles W. Beckman, M.D., Kalona
Thaddeus T. Bozek, M.D., Iowa City
James A. Bullard, M.D., Decorah
Glendon Button, M.D., Conrad
Thomas J. Carroll, M.D., Sibley
John S. Chapman, M.D., Dubuque
Arnold Y. Cheong, M.D., Iowa City
Eugene W. Coffman, M.D., Dubuque
Paul C. Cunnick, M.D., Davenport
James E. Dolan, M.D., West Des Moines
Donald K. Faber, M.D., Le Mars
Robert C. Eaton, M.D., Clarion
Victor G. Edwards, M.D., Iowa City
Harold E. Eklund, M.D., Urbandale
Maurice Estes, M.D., Cedar Rapids
George F. Fieselmann, M.D., Spencer
Loraine H. Frost, M.D., Iowa City
William B. Galbraith, M.D., Cedar Rapids
James R. Gilloon, M.D., Dubuque
Edward B. Grossman, M.D., Orange City
Lewis B. Harned, M.D., Waterloo
John L. Hoyt, M.D., Creston
Robert S. Jaggard, M.D., Oelwein
James H. Jeffries, M.D., Waterloo
Arno L. Jensen, M.D., Clinton
Kenneth J. Judiesch, M.D., Iowa City
Frank G. Judisch, M.D., Iowa City
Stewart F. Kanis, M.D., Pella
David F. Kapp, M.D., Dubuque
Joseph L. Kehoe, M.D., Davenport
James D. Kimball, M.D., Osceola
Karl Larsen, M.D., Iowa City
Paul J. Leehey, M.D., Independence
Scott Linge, M.D., Fayette
Neal Llewellyn, M.D., Iowa City
John K. MacGregor, M.D., Mason City
Louis L. Maher, M.D., Des Moines
George W. Marme, M.D., Clinton
John R. Maxwell, M.D., Iowa City
Harold K. Merselis, M.D., Audubon
Beryl F. Michaelson, M.D., Dakota City
Jay R. Miller, M.D., Wellman
Lawrence A. Miller, Jr., M.D., North English
Keith F. Mills, M.D., Lone Tree
Harold D. Moessner, M.D., Amana
Thomas R. Nicknish, M.D., Iowa City
Stewart O. Olson, M.D., Des Moines
Donald N. Orelup, M.D., Albia
Roy Overton, M.D., West Des Moines
Arthur M. Pederson, M.D., Council Bluffs
John C. Peterson, M.D., Hartley
Richard E. Preston, M.D., Des Moines
Arnold M. Reeve, M.D., Des Moines
Harry V. Robinson, M.D., Sioux City
William Robson, Jr., M.D., Cedar Rapids
Donald F. Rodawig, Jr., M.D., Spirit Lake
Dwight G. Sattler, M.D., Kalona
John R. Scheibe, M.D., Bloomfield
Roger A. Simpson, M.D., Iowa City
Clifford C. Smith, M.D., McGregor
William A. Spencer, M.D., Osage
Robert L. Swaney, M.D., Cedar Rapids
Wayne J. Tegler, M.D., Iowa City
Paul VanderKooi, M.D., Orange City
Thomas R. Viner, M.D., Leon
Desmond Waters, M.D., Williamsburg
David W. Wright, M.D., Decorah
George L. York, M.D., Clinton
Richard A. Young, M.D., Clarion
Warren C. Zabloudil, M.D., Burlington
Ronald L. Zoutendam, M.D., Sheldon

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Scientific Articles

Continuing Medical Education in Your Future

RICHARD M. CAPLAN, M.D.
Iowa City

WHY DO WE CARE about the continuing medical education of physicians? Because we want to provide the best possible health care to patients. And in a time of advancing knowledge that rapidly produces new ways to prevent and treat disease, that ideal of "the best possible health care to patients" cannot be maintained unless physicians work to remain current.

If a healthy physician offers his patients any less than up-to-date preventive, diagnostic and therapeutic service, it may be due to these possible reasons: (1) he willfully chooses to do less than his best; (2) he is too busy and tired; (3) ancillary resources (all the things that money and personnel might provide) are not available, or (4) he simply does not know in what regard he needs educating, or what he should do. I am willing to exclude the first possibility in all but a rare instance. The second and third are probably of great importance in many situations, but it is especially the fourth situation where *educational programs* have their unique role to play.

This article will discuss some of the old and new pressures that weigh on physicians to maintain a high level of competency, some of the techniques and sources used in educational refurbishing, including an experimental demonstration in Iowa of practitioner learning, some comments about the community-level thrust of future programs, and finally some possible ways that a College of Medicine may help the practicing physician.

Dr. Caplan is Assistant Dean for Continuing Medical Education at The U. of I. College of Medicine. He is also a professor in the Department of Dermatology.

CURRENT PRESSURES

What pressures already encourage physicians to continue their medical educations throughout their practicing lifetimes? First, there is the *personal* desire to be current and effective in delivering good care, thus giving fulfillment to our altruistic and intellectual needs, and our vow to "professionalism." Second, there is subtle pressure from our colleagues, whom we know to be perceptive about our work, as we are about theirs. For example, long-established activities and habits provide us information about our colleagues—from tissue committees, utilization review committees, hospital staff meetings, conversations with patients and each other, along with newer peer review mechanisms involving computerized data banks that can print-out many of our customary behavior patterns. Third, patients are more informed and literate about medical matters than ever before in the world's history. Their questions, comments and attitudes derive from information in the public domain that may annoy us and nudge us inappropriately, but likewise add to our uncomfortable awareness that any major lacunae in our information or skills are not likely to remain hidden for long. And finally, there is the increasing pressure from public groups, government, and other third-party insurance

carriers who insist to us via humanitarian and financial considerations that the care we render be the maximum in efficiency and quality.

POSSIBLE NEW PRESSURES

In addition to such current pressures, new considerations are looming larger to make us and the public more aware of our responsibilities and activities in continuing medical education. *Recertification* for specialists is receiving strong consideration from all specialty boards, led by the American Board of Family Practice with its six-year certification period. *Relicensure* is likewise an issue generating much discussion and concern among the various licensing authorities as well as among some practitioners who are upset at either an implied personal threat, or the prospect of ridiculously low standards.

Evidence of appropriate participation in continuing education activities is currently a *requirement for membership* in the State Medical Societies of Oregon, Pennsylvania and Arizona, and the AMA House of Delegates (December, 1970) has officially urged all component societies to investigate the desirability of such a rule. Some groups are proposing similar rules for *continued hospital staff privileges* (for example, the New Mexico Medical Society). The *AMA Physician's Recognition Award* is now available and will probably have increased prestige in the future as a voluntary procedure for attesting to efforts given to practitioner education. *New laws and regulations* at both federal and state levels will likely insist on some attestation of educational effort in relation to quality control, for it is abundantly clear that the governmental bill-payers will want hard-data evidence of the quality of the service they are buying. And finally, it will probably be only a short while before we will all feel the impact of the many *voices inside and outside the profession* calling for educational efforts conducted in relation to an actual audit of physician performance.

SOURCES OF CONTINUING EDUCATION

What are the sources of continuing education for physicians? Most people probably think first of the rather traditional exercises that are called courses, conferences, symposia, or workshops. Such sessions vary from one to five days in length and may present material in depth, or touch lightly on many topics. The physician must customarily leave his community, which is a disadvantage except that it may provide a gratefully welcome justification to get away for a while. The subject matter of such programs is frequently of rather little relation to the problem-centered world of the practitioner. Too often the design of the course makes the practitioner a totally passive recipient of information transfer—the information may "leave" the speaker, but dreadfully little of it "sticks" to the listener. However, this type of activity is popular and the number of options available in this format has increased greatly in recent years. Even though fairly inefficient at producing measurable quanta of learning, or statistically demonstrable improvement in the public's health (at least as judged by such crude yardsticks as mortality rate), such courses are a significant part of an educational structure and methodology that has somehow produced tens of thousands of physicians who provide excellent services to the populations they serve. Furthermore, such postgraduate courses match the "learning style" of a great many physicians, and are perceived by them as generally useful and important.

A study by Lewis and Hassanein[1] of the continuing education programs provided by The University of Kansas has led some to discouragement. The fact that 43 per cent of Kansas physicians did not participate in any University of Kansas programs during the decade to 1965 does not prove they were not learning by *some* means or other. Nor does the lack of decrease in infant mortality, for example, mean that no benefit can be credited to the course efforts in obstetrics or pediatrics. Perhaps infant mortality rate is an inappropriate yardstick to assess the courses offered, which included other aspects of obstetrical and newborn care. Such "epidemiologic" measures of health care also fail to acknowledge any value in the reassurance, inspiration, intellectual stimulation, or professional elbow-rubbing, which in my opinion are *also* legitimate aims of continuing education efforts, but are goals admittedly more difficult to measure with current research instruments. To assert that nothing has occurred because it has not yet been successfully measured would be to

commit a major logical fallacy. For example, much of the "hard data" that supports Einstein's relativity theory was provided many years after his original speculations were published. Although an improved state of health and well-being for our society is a legitimate first priority for the medical profession, it would be naive to consider it the only legitimate objective of a physician's effort, or that it can be satisfactorily determined by present means of assessment.

Do physicians learn at postgraduate courses? I cannot certify how often or how much they *do,* but I am persuaded that they *can.* Because there is so little hard data about this question, I sought to measure learning at the University of Iowa 1970 Refresher Course for General Practitioners, a four-day program of faculty talks, question-and-answer sessions, and small group discussions.

LEARNING MEASUREMENT

Method. A multiple-choice type of examination was prepared. Fifty items were selected and edited from material submitted by faculty members who were asked to prepare items based on information they would present at the course. A total of 40 additional items was mixed (without any indication) among the "Iowa items," the 40 having been borrowed from a bank of test items at the University of Wisconsin's Department of Postgraduate Medical Education. These were kindly supplied by Thomas C. Meyer, M.D. The "Wisconsin items" thus were controls, because they were carefully selected for content that would *not* be discussed at the course. The pre-conference test was mailed to 178 physicians whose registrations were on hand two weeks before the start of the course. At the beginning of the course, 63 individuals accepted the invitation to turn in their answer sheets, coded only by number for machine scoring.

Three weeks after the course ended a post-conference test was mailed to all 230 registrants. The post-conference quiz was in fact identical in content to the pre-conference quiz. However, the test was reprinted with the items in a different order, with a different pattern of mixing of the Iowa and Wisconsin items, and with the answer options for each item reordered. These precautions were taken to insure that no individual would be cued to his previous answer simply by remembering the visual "shape" of the item. Because several weeks had elapsed, it seems almost certain that very few items would have been specifically recognized, or a particular answer recalled as having been the one used to answer the item on the pre-conference quiz. Although some might have taken the test as an "open-book exam," it seems highly unlikely that busy practitioners would take that extra trouble for a casual quiz. Furthermore, the Wisconsin items served as a control, since open-book taking of the exam would be expected to increase the scores on the Wisconsin sub-set of items also. In the subsequent four weeks after mailing the post-conference quiz, a total of 51 physicians mailed back their answer sheets, with identification code numbers matching the coding of the pre-conference test through number 178. Of the 51 who sent their answers to the post-conference quiz, 30 were individuals who had also turned in a pre-conference answer sheet. All participants were then informed of their pre- and post-scores, along with the key to the correct answers.

Results. Paired pre- and post-conference test scores were available for 30 physicians. The distribution of their scores is shown in Figure 1. The most important part of the data is seen on the right half, where the paired before and after results are given for Iowa items, Wisconsin items, and total score. The average score on the 50 Iowa items increased from 31.0 (σ = 4.3) to 36.6 (σ = 6.0), an increase highly *unlikely* to have resulted from chance variation ($p < .001$).* The mean score on the 40 Wisconsin items increased from 27.0 (σ = 4.3) to 29.2 (σ = 5.4) a small increase *likely* to have resulted from chance alone ($p > .05$). The change on the arithmetical total also increased significantly, reflecting primarily the increased scores for the Iowa subset of items. Figure 2 provides another way to visualize the change in the Iowa and Wisconsin scores for those same 30 physicians. Twenty-seven of the 30 (90 per cent compared to an anticipated chance 50 per cent) showed improvement on the Iowa items, while 17 of the 30 (57 per cent compared to an anticipated chance 50 per cent) improved their scores on

* Using the t-test, kindly computed by Mr. William Clarke.

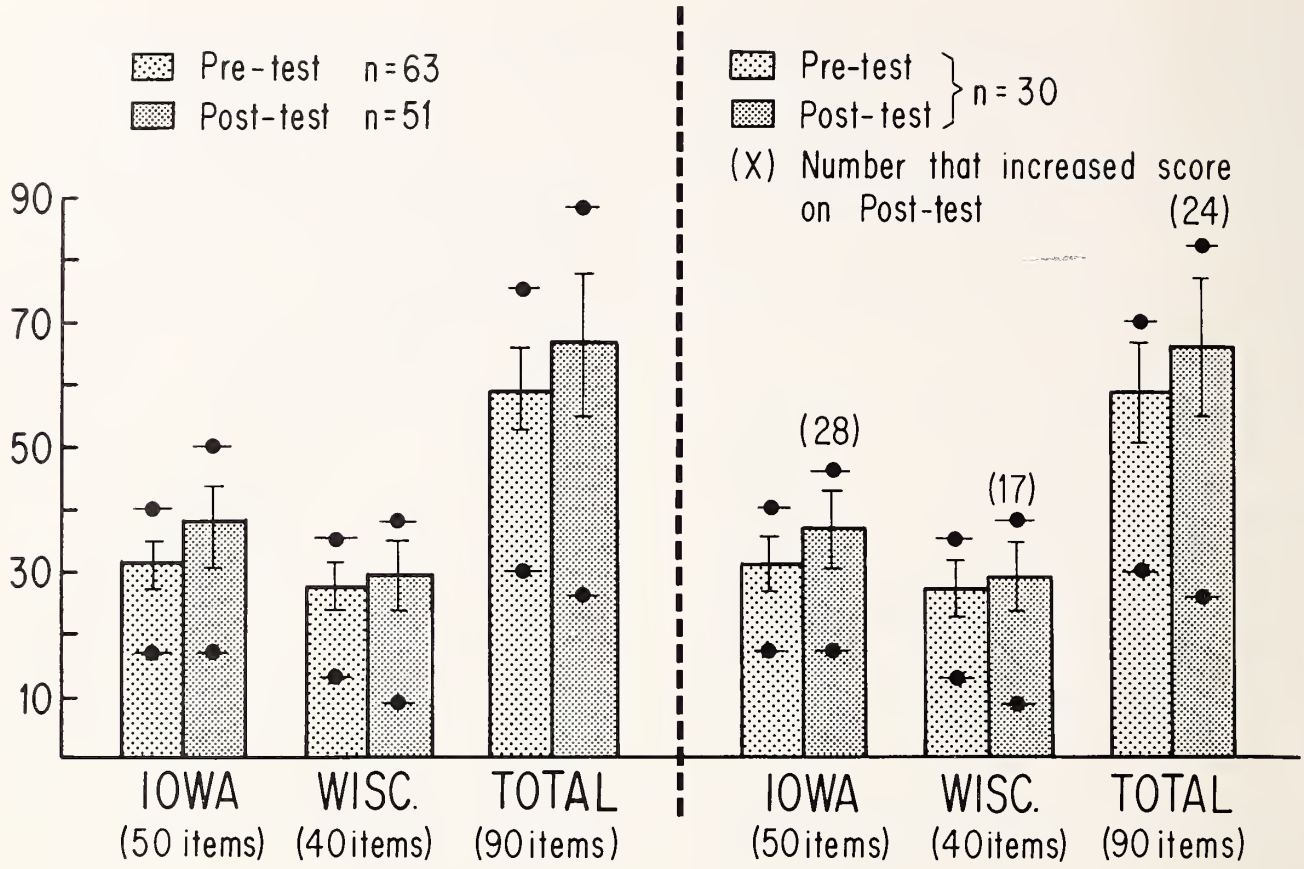

Figure 1. Histogram showing mean, standard deviation, and range of scores on the pre- and post-conference test administration. The 90 items of the test consisted of 50 "Iowa items" and 40 "Wisconsin items" (see text). Data to left of vertical dotted line represent the compilation of all respondents, of which 30 responded both pre- and post-conference. The data for those 30 are shown to the right, and discussed in the text.

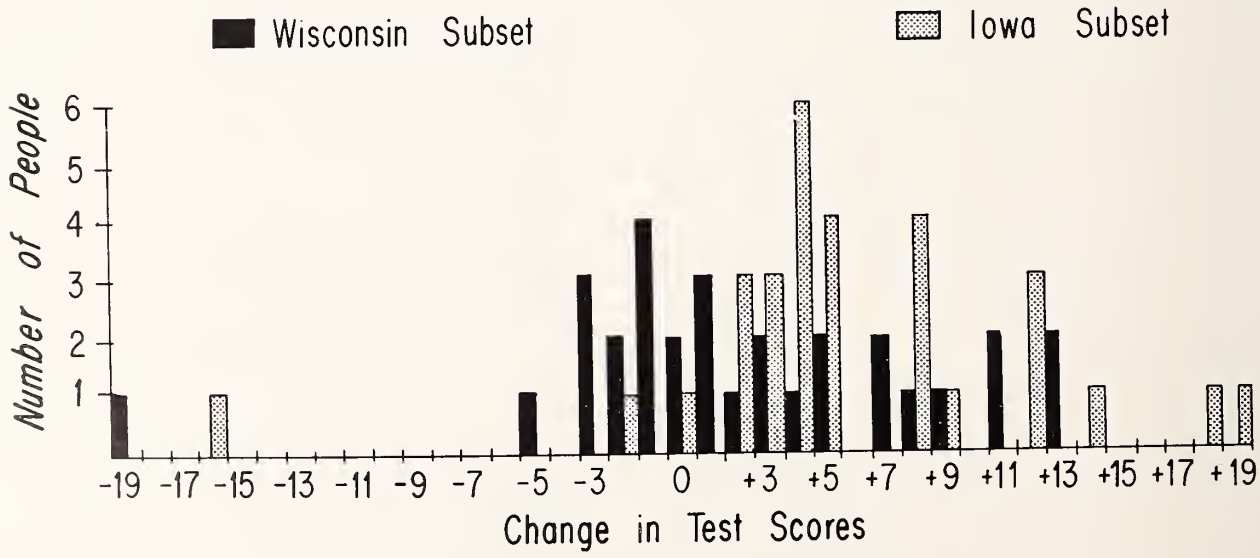

Figure 2. Chart showing the distribution of changes in score from pre-conference to post-conference test administration, for the 30 available respondents.

the Wisconsin items. Because the respondents took the post-conference quiz several weeks after the Conference, rather than at its termination, and since the decrement in retention of new material is customarily so rapid, it seems likely that the improved scores on the Iowa items represented a permanently increased fund of correct knowledge for the 30 physicians who cooperated fully in the study.

Comment. This experiment demonstrates that learning of content material can and does occur at the conventional type of postgraduate course—that is, learning as measured by a pencil and paper examination of that standard type. But who really cares about that, except as an academic exercise with an element of narcissism, unless it tells us something that we really care about, namely, the actual clinical behavior of physicians striving to elevate the level of health care of our society? Such tests are employed to help determine who is a "qualified" applicant for admission to medical school, and again to determine who succeeds in medical school, and again for purposes of licensure and certification. Obviously, those tests provide a reasonable estimate of the retention of information fragments at the time of the testing. However, research[2] has shown that such pencil and paper tests can only imply or suggest, and rather poorly at that, what relative competence for clinical practice may indeed be present in the physician, and that many other factors determine his actual behavioral competence.

What we need more than standard pencil and paper examinations is an assessment of actual performance with patients, with judgment to be rendered by peers using pre-determined standards of acceptable performance. That is what peer review and quality control in medicine are all about. To the extent that any performance falls short of a pre-determined optimal level, an "educational prescription" is thereby obvious.

OTHER POSSIBILITIES

Another type of continuing education is the "traineeship," in which the practitioner returns to an academically-oriented institution as a participant in the customary "post-graduate life" of that institution. Traineeships of a few days to several months' duration can be especially effective in altering a physician's behavior, because he actually *performs* the new skills under supervision in *real clinical situations.* That kind of activity "sticks." The opportunities for such experiences have been somewhat limited, but even more limiting is the difficulty many practitioners have in trying to leave their practices. Of course, this difficulty is especially great for solo practitioners.

Reading of books and journals is yet a mainstay in the continuing education of most practitioners. The effects of such effort are difficult to measure, which is equally true for these other important forms of continuing education: learning through one's own practice (trial and observation, and sometimes error); learning via informal discussion with colleagues; learning from consultants to whom patients were referred; learning from advertising (printed or verbally transmitted by manufacturers' representatives).

The use of modern technological aids has brought instructional material to many physicians: audio-tapes; slide-sound presentations; live or taped presentations or conferences via telephone, radio or television; standard films or cassette-packaged films; video-tapes; self-study courses, some in the manner of programmed instruction; self-assessment tests now available through several specialty boards (for example, internal medicine, orthopaedic surgery, pediatrics, psychiatry); or combinations of them. These newer techniques for information transfer have not yet firmly captured the attention (or staying power) of physicians, nor is there evidence to show that these technological innovations are any better at producing learning or improved patient care than any other methods.

THE FUTURE

Many educational theorists such as Knowles[3] have expressed eloquently and persuasively that adults learn best: when they are *working on problems;* when the problems are *real* because they are drawn from their *own experience;* when they have a *voice in selecting* the problem and the method of study; when their learning is *facilitated by an instructor* who seems more like a friendly colleague than an authoritarian taskmaster; when the *physical circumstances are congenial;* when a *variety*

of learning modalities are available, and so on.

To identify and study actual problems and their solutions in the hospitals or office settings of practitioners is an important new advance in making continuing education activities truly effective in any effort-to-benefit analysis. Contributions by Williamson,[4] Miller,[5] Brown and Uhl,[6] Evans,[7] and Gonnella, *et al* [8] have led the way toward a continuing education of the future that will strive to identify significant needs at the local level, respond to those needs by locally devised and implemented learning experiences, and then follow-up to be sure that the desired improvement has indeed occurred. Such local determination of needs is perhaps the most important yield from the processes of peer review and medical audit. Those processes will provide the "raw material" for continuing medical education, and should be viewed as a fine new opportunity. As Hunter[9] has admonished us: "Keep in mind that peer review is an ongoing thrust in the direction of better and more inclusive care, rather than an attempt to either ferret out or to punish wrongdoing. By keeping this concept foremost, peer review does not represent something to avoid or rebel against, but rather an opportunity to further improve both the art and science of patient care."

Such local activities as just described require considerable effort and educational expertise. Small community hospitals that lack either a Director of Medical Education trained in such skills, or any staff member similarly trained, currently feel at a loss to pursue such programs. However, a proper role of a medical school, or state medical society, or regional medical program might be to provide encouragement, instruction and catalytic influence to accomplish such grass-roots programs of practitioner education. This approach would operate on the premises that (1) physicians accept their need to be responsible and demonstrate that responsibility to society, and (2) that they are willing to look at themselves and each other with a spirit of dispassionate inquiry, inform themselves of what they find, implement educational programs after needs have been identified and criteria of satisfactory performance decided, and then reassess and repeat until the desired optimal performance is achieved.

All these developments have produced a climate that will require of our practitioners, individually and collectively, a renewed spirit of willing concern for life-long study, plus unmistakable contributions of time, effort, space and money to see that meaningful activities are instituted. And a College of Medicine, if it takes seriously its commitment to assist in the life-long education of practitioners, must be responsive to such community needs and efforts. It must seek enthusiastically for additional methods and resources for responding to the personal and social needs which are implied in the designation, continuing education. It must demonstrate the techniques for establishing needs, and make available faculty, physical resources, and educational know-how. It must instruct or assist local groups, charged with the educational imperative of peer review, in evaluating the health status of their communities and the practice behavior of their physicians. And above all, it must provide leadership, example, initiative and inspiration.

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1971 IMS Annual Meeting

April 25 to 28

House of Delegates

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General Sessions

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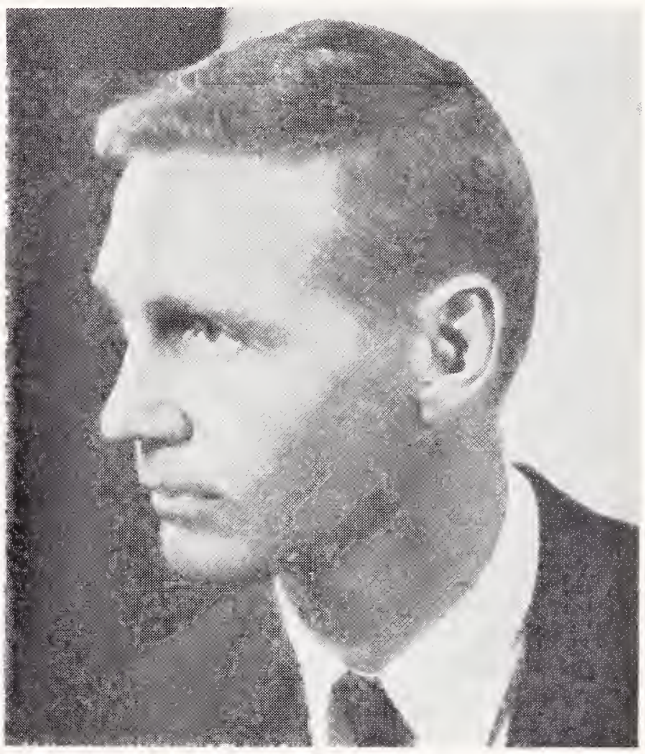
Complete Program Appeared in March JOURNAL

Undergraduate Education In Family Medicine

ROBERT E. RAKEL, M.D.
Iowa City



ROBERT E. RAKEL, M.D.

THE DEMISE OF THE FLEXNERIAN era of medicine can be visualized in the somewhat frantic shuffling of our medical school curricula. We are abandoning the regimented educational system of the past and replacing it with one realistically adaptable to varying individual talents. Flexner ascribed his report only to the era of 1910 and the near future, a generation at the most. If we accept his recommendation, we are already 20 years late in readjusting our educational attitudes. In the Flexner system, time was held a constant and achievement the variable. Our present emphasis upon developing instructional objectives should reverse this unrealistic practice. Instead, we must make achievement the constant with time devoted to each area the variable, depending upon each student's interest and needs.

This is an exciting time in which to be developing the specialty of Family Practice, which can be described as modernized general practice. Family Practice can best be defined as continuing comprehensive care.

COMPREHENSIVE CARE

First, let's concentrate on the words *comprehensive care*. The specific subjects which prepare us to "do our thing" cover technical skills in all medical disciplines and contribute to making a particular physician truly comprehensive. This knowledge is not unique, however, for it is held by all specialists in a particular field. What is unique is the manner in which the Family Practitioner utilizes this knowledge by coordinating the efforts of all members of the health care team, whether they be medical specialists or allied health personnel. Coordinating ability is not an inborn trait among all physicians; it must be acquired and it must be included in training programs. This can appropriately be included in the residency programs and also in the Family Practice clerkships and clinical electives. This skill is becoming increasingly important in the delivery of health care as our proliferating knowledge necessitates increasing fragmentation in the sub-specialty areas.

Next let us consider the word *continuing*. By virtue of his continuing involvement with the patient, the Family Practitioner is able to develop and maintain a more humanistic relationship. Merle Cunningham, a student at

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Dr. Rakel joined the faculty of The U. of I. College of Medicine in February as head of the new Department of Family Practice. This article is an adaptation of a paper presented by Dr. Rakel to the Society of Teachers of Family Medicine at a meeting of the Association of American Medical Colleges in November, 1970.

Rochester School of Medicine, reporting to the Congress on Medical Education in 1969, said "Our immediate goal as students is to help you humanize the environment of our training and make it more relevant to the preparation we need to meet the health care problems of our people."

OPPORTUNITY TO DEMONSTRATE

Family practitioners working within model units at university hospitals have a unique opportunity to demonstrate to students the empathy and humanistic attitudes which are a necessary and integral part of continuing comprehensive care. One contributing factor in the dehumanizing process is our new attempt to thrust the medical student into the role of physician upon entering medical school. I strongly support this involvement with patients early in the freshman year. But we are immediately thrusting students into a position of authority when there has been too little time, if any at all, for them to develop an awareness of the sensitivities and feelings of nurses and the frustrating helplessness of patients. This becomes especially relevant as our basic sciences are being telescoped into the premedical years to allow more room for early clinical involvement. Our undergraduate medical education should begin in the premedical years and students should be encouraged to accept positions that will allow them to identify with patients and nurses. Students at this level have a nonauthoritarian desire for helping roles in clinical medicine. We should capitalize on this and give them a chance to experience the frustrations, the pain, the odors and helplessness relating to illness. Perhaps premedical classes can be structured in cooperation with the nursing and physician's assistant training programs.

FAMILY PSCHODYNAMICS

Let me return to other areas of knowledge that may be the special province of Family Medicine. We must produce physicians who are sophisticated specialists in the ecology of a family and its relationship to personal, social and community health. Courses in family psychodynamics should be required for all undergraduates. Family Practice residents are presently being exposed to this by working in child guidance clinics. There they develop an appreciation for the psychologic interrelations of a family by evaluating a disturbed child and investigating the factors that contributed to his behavior disorder. Much needs yet to be done to develop these areas more thoroughly, but once this is accomplished Family Medicine will have a body of knowledge which can be shared with other departments within the medical school. Knowledge of family psychodynamics is just as useful to an orthopedic surgeon as knowledge in office and emergency room orthopedics is to the Family Physician. It is important that we inaugurate this as soon as possible so that a respectable and useful role for Family Medicine can be established within the medical school curriculum.

We are now faced with the task of presenting this material at the proper level of medical education. It is not too difficult to develop a list of suggested topics for presentation by Family Practitioners to medical students. However, I feel the most important exposure for freshman and sophomore students is their observation of the family physician actually at work in his clinical setting. Here it is possible for the student to see first hand the advantages (for the patient and for the physician) which result from continuing comprehensive care.

The Family Practitioner should participate in teaching in areas where he has identity and his particular attributes will be visible. This is in preference to his giving a lecture in physical diagnosis under the Department of Internal Medicine. He can establish himself as coordinator of the health care team by moderating joint conferences and panel discussions which have an interdepartmental flavor about them. He then becomes identified among the students as a first-line representative of the patient and the one who orchestrates the skills and attitudes of the various sub-specialists involved.

NEED EXPOSURE

There is a further important factor which demands early attention from medical schools. The medical student in his first two years should have the opportunity to develop an appreciation for Family Practice and all other fields of clinical medicine, so that he may chart his future wisely and from some experience. Rather than allow students to develop unrealistic images of private practice from limited

exposure to specialties as they function in the university hospitals, we must give them a realistic picture of all aspects of community medicine. In this way they are better prepared to choose the role for which they are best suited and the one they intend to pursue as a medical career. I feel this can best be done by a preceptorship with Family Physicians in the freshman year. At this time they can develop an appreciation for Family Practice, and they can also observe the function of each specialist within the community as he relates to the referring physician. Should they then feel predisposed to follow one of these specialties, the second year should be devoted to a preceptorship with that particular specialist in order to solidify the image prior to following this pathway in the third and fourth years.

The most qualified teachers of Family Practice are family physicians, preferably practitioners with 10 or more years' experience who have had adequate opportunity to develop expertise in managing personalities and who have accrued a full measure of benefit from continuing involvement with their patients. Field professorships as have been established at the University of Kentucky and elsewhere are a means of extending the university faculty into the true community. These can be accomplished in rural, urban, or ghetto areas as desired by each school. Family Physicians working within the model office at a university hospital should all maintain at least a half time practice. Less than this would diminish their proficiency and lend the same artificiality to Family Medicine as has occurred in some other specialties working in the university hospital atmosphere. Competence in our specialty, more than any other, depends upon continual involvement and constant exposure to the patient.

Any break with tradition is traumatic to those who have been devoted to those traditional concepts. Medical schools however are now developing a sense of social motivation and a sincere desire to deliver primary physicians who will answer the medical care needs of the broad community served by each school. The students, public, and now the government are demanding that this shift in emphasis take place. While exposing students to the realism of community medicine, we must still maintain an investigative atmosphere and continue searching for new methods of delivery that will allow us to adapt to changing social needs.

ROLE AS COORDINATOR

The development of a Family Practice Health Care Team is one modern attempt to solve the problem. The Coggeshall report to the American Association of Medical Colleges in 1965 stressed that the rise of specialization has resulted in an increasing trend toward team practice involving the contribution of a spectrum of specialists. This places more emphasis on the previously mentioned role of the Family Practitioner as a coordinator or leader of the team that collaborates to meet the needs of the patient. Our investigative attitude must also concern itself with the newer techniques in predictive and preventive medicine such as the health hazard appraisal, multiphasic screening, and the use of the computer in medicine.

Iowa Thoracic Society
May 5 Medical Program

A half-day medical program will precede the Annual Meeting of the Iowa Thoracic Society, Wednesday, May 5, at the Hotel Savery in Des Moines.

Presentations beginning at 1 p.m. will be as follows:

Comparison of Cutting Needle & Air Drill Trephine Percutaneous Lung Biopsy—Donald C. Zavala, M.D., Internal Medicine, U. of I. College of Medicine.

Hereditary Emphysema & Alpha Antitrypsin Deficiency—R. G. Townley, M.D., Associate Professor, Creighton University College of Medicine, Omaha, Nebraska.

The Radiologic Appearance of Congenital Pulmonary Lesions—E. T. Evans, M.D., Radiology, U. of I. College of Medicine.

Cystic Fibrosis in the Adult—R. D. Gauchat, M.D., Pediatrics, U. of I. College of Medicine.

All Iowa physicians and spouses are invited to the meeting. A hospitality hour will precede dinner (6 p.m.) and the Society's business meeting will follow. M. S. Lawrence, M.D., Iowa City is president of the Iowa Thoracic Society. New officers will be elected during the business meeting.

Long-Term Remission Following Castration For Advanced Breast Cancer

R. D. LIECHTY, M.D.
Iowa City
G. M. PALUSKA, M.D.
Philadelphia, Pennsylvania

ALTHOUGH OPERABLE colloid breast cancer has a relatively favorable prognosis, we can find little evidence that advanced stages of this disease respond more favorably to hormonal therapy than other advanced breast cancers. A tumor-free remission, now 13 years following castration for advanced colloid breast cancer, has prompted this report.

CLINICAL DATA

R. H. (57-14809), a 33-year-old, single, white female, had a left radical mastectomy for a colloid breast carcinoma on April 3, 1951, at another hospital. (See Figure 1a.) The axillary lymph nodes were reported histologically negative. After mastectomy, she received the following radiation therapy: 4100 R (air dose) to the left supraclavicular area, 4200 R to the left axilla, and 3500 R to the left chest wall (200 KV; 50 cm SSD; 0.95 Cu HVL).

In 1955, the referring physician first noted a left hilar mediastinal mass radiographically that gradually enlarged and became more dense. He referred the patient to University Hospitals on October 8, 1957, with the diagnosis of either radiation fibrosis or neoplasm.

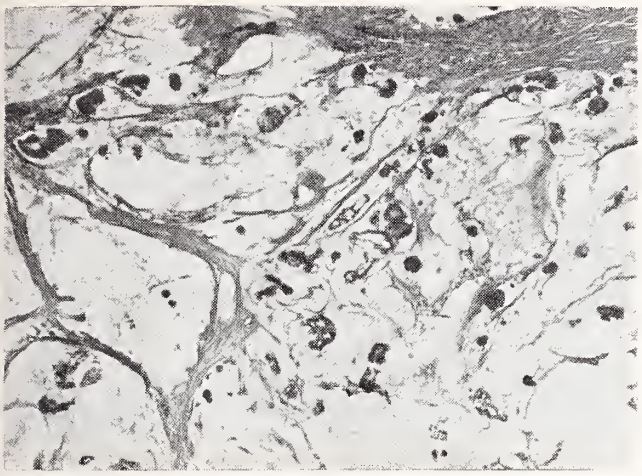
On admission here, the patient was completely asymptomatic; she had no cough or history of weight loss. Physical examination was normal except for surgical absence of the left breast. Chest radiographs revealed a well-defined, 5 to 6 cm spherical mass in the left upper lobe, and bronchograms demonstrated blockage of the left upper lobe bronchus. (See Figure 2a.) Bronchoscopy showed a neoplasm protruding from the left upper lobe orifice; cytologic studies of bronchial aspirates were indeterminate.

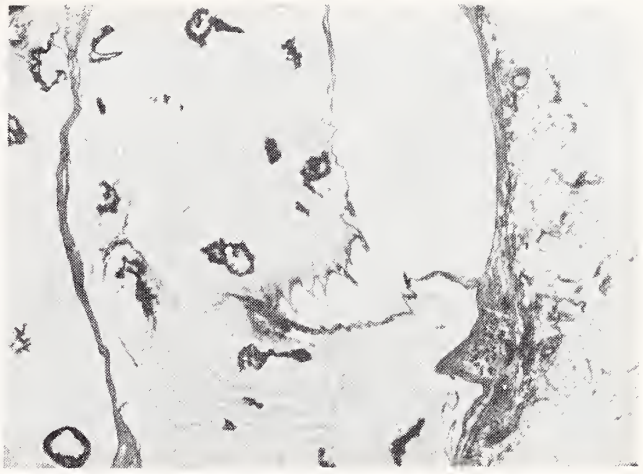
On November 11, 1957, Dr. J. L. Ehrenhaft performed a left thoracotomy. His operative report reads as follows: ". . . there were numerous smaller cauliflower-like, mucoid carcinomatous implants without evidence of free fluid in the pleural space. Those implants extended all over the parietal pleura and over the diaphragmatic surface. The main mass in the lung existed in the left upper lobe, which was filled by a tumor measuring 4 to 5 cm in diameter. This tumor had broken through near the lung hilum along the left upper lobe bronchus and a large gelatinous neoplastic mass surrounded the hilar structures and extended over the aorta up toward the neck vessels and mediastinum." Histological examination of tissues removed from the hilar mass and pleural implants showed colloid adenocarcinoma. (See Figure 1b.)

On each of the second and third postoperative days, the patient received 12 mg of nitrogen mustard intravenously. Starting on the fourth postoperative day, a 10-day course of radiation therapy was begun (10 × 15 cm anterior and posterior mediastinal fields; total of 2000 R air dose to each field by 250 KV x-rays; 50 cm SSD; 3.0 mm Cu HVL). Because the patient was premenopausal, surgical castration was performed on November 19, 1957. The surgeon found no evidence of intra-abdominal metastases; the ovaries were normal histologically. She left the hospital on November 30, 1957.

Seven months following discharge, chest radiographs showed definite tumor regression. Subsequent films over the past 13 years have been normal except for surgical absence of the

Dr. Liechty is an associate professor in the Department of Surgery at The U. of I. College of Medicine. Dr. Paluska is now an intern at the University of Pennsylvania Hospitals in Philadelphia.





Figures 1a and 1b. a) Photomicrograph (×60) of primary colloid adenocarcinoma of the breast. Left radical mastectomy April 3, 1951. b) Photomicrograph (×60) of colloid adenocarcinoma metastatic to pleura. Thoracotomy and biopsy November 11, 1957.

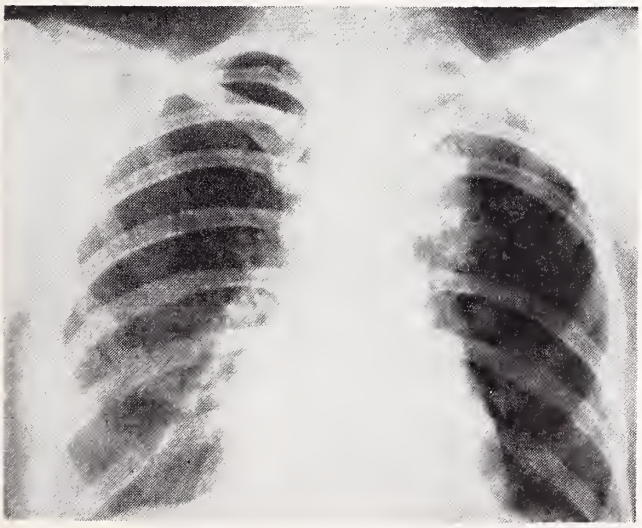
left sixth rib. (See Figure 2b.) Her physical status has remained excellent. Her weight has increased from 140 to 157 pounds, and although an active, vigorous woman, she has had to diet to keep her weight below 160 pounds.

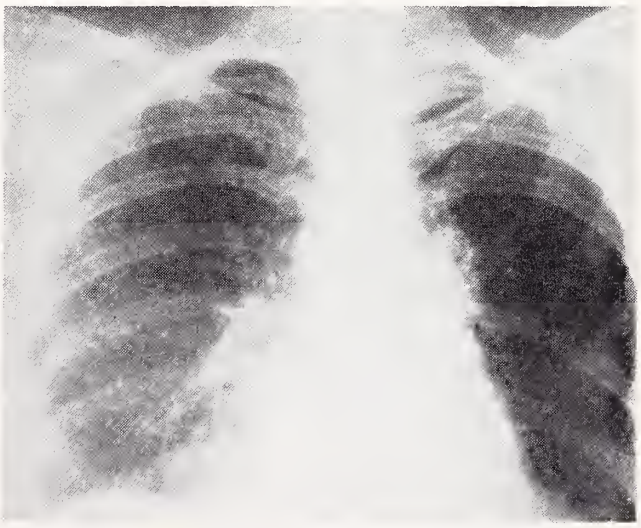
DISCUSSION

Colloid breast cancer, totalling about 2 per cent of all breast malignancies, has a more favorable prognosis than would be expected from breast cancer in general. Melamed *et al*,[2] reporting on 107 cases, showed an overall five-year survival rate of 69.1 per cent compared to a control group's 54.3 per cent. The incidence of axillary metastases from colloid carcinoma was 43.0 per cent in contrast to 55.6 per cent from breast cancer as a whole. He also demonstrated that the greater the gelatinous component, the longer the survival. The abundant mucin in our patient's primary and metastatic lesions (see Figures 1a and 1b) is consistent with the long free interval. We wonder if the copious mucin might indicate a favorable response to castration as well.

In Melamed's series, only three patients with advanced colloid carcinoma survived for extended periods. However, none had visceral metastases, and the longest follow-up was 6½ years.

Because colloid breast cancer is a rare tumor, there are no meaningful comparisons of





Figures 2a and 2b. a) Chest radiograph (1-30-58) showing left hilar mass with left upper lobe involvement, 10 weeks following biopsy diagnosis of metastatic colloid carcinoma. b) Chest radiograph (12-1-70). Normal appearance of mediastinum and lung. Surgical absence of left 6th rib and left breast.

hormonal therapy of advanced colloid with other types of advanced breast cancer. This patient received intravenous nitrogen mustard, localized mediastinal irradiation, and surgical castration. Since we believe the 24 mg of intravenous nitrogen mustard to be only a token therapy, and our radiotherapists assure us that the localized radiotherapy could not have sterilized the peripheral chest metastases, we conclude that castration induced this remission.

Castration induces remission in about 40 per cent of patients with advanced breast cancer, the mean interval from castration to death varying from 20 to 30 months.[1, 3] This patient, with colloid metastases initially scattered throughout the mediastinum, lung and pleural cavity, represents a remarkably long (13-year), tumor-free remission after oophorectomy.

SUMMARY

Whether advanced colloid breast cancer responds more favorably than other breast cancers to castration is undecided. A 13-year, tumor-free remission, following castration for colloid visceral metastases, stands uniquely apart from the usual castration responses of advanced breast cancer.

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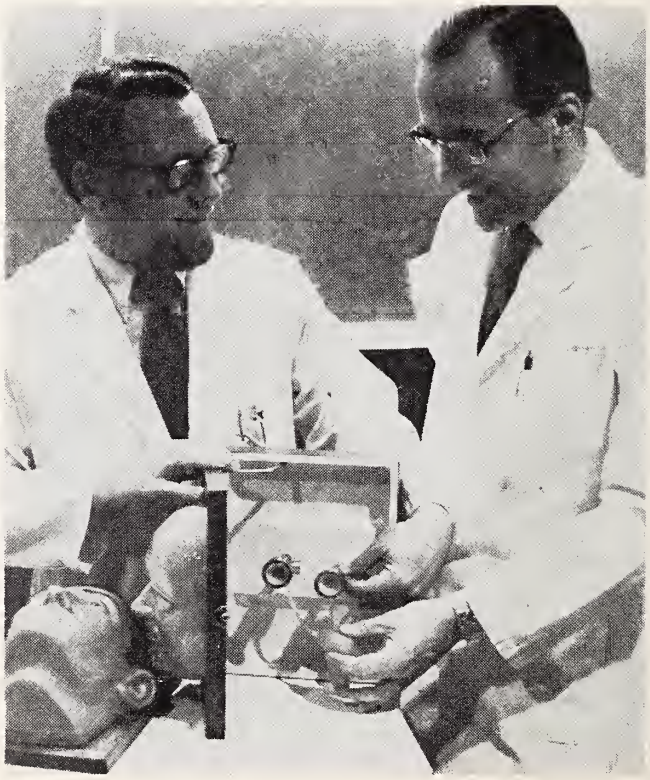
U. of I. Instructional Innovations

New methods of teaching ophthalmology to medical students are being devised at The U. of I. College of Medicine in a project being directed by Bruce E. Spivey, M.D., associate professor of ophthalmology and chairman of the College's medical education committee.

When completed, the instructional unit will provide the medical students with mastery of those skills which have been determined to be the minimum acceptable performance in ophthalmology for graduating medical students.

Funds to support the project have come from the U. S. Office of Education and the Sloan Foundation.

It will be possible for any medical school to utilize the educational program and portions of it also will be useful in the education of physicians' assistants, in the continuing education of practicing physicians, and in non-ophthalmologic residency training programs.



Pressure changes in the eye, such as occur in glaucoma, can be simulated with model developed by Dr. Spivey, left, associate professor of ophthalmology at The U. of I. Assisting Dr. Spivey is August Colenbrander, M.D., a visiting professor from Leiden University, The Netherlands.

University of Iowa Hospitals and Clinics Convert to the Metric System

AUGUST COLENBRANDER, M.D.
Iowa City

March 1 Changeover

On March 1 University Hospitals converted all patient temperature measurements from Fahrenheit to Celsius (centigrade) and changed all patient weight and linear measurements from the U. S. to the Metric System. Volume measurements had been recorded in the Metric System at University Hospitals already.

The effect of this metrication will be felt indirectly by all Iowa physicians inasmuch as correspondence to referring doctors and other communcation from the University will now carry values in the metric system.

This article by an expert in the area of medical information and medical records is presented for the background information of JOURNAL readers.

SPRING IS A NEW BEGINNING. This spring the staff and other personnel at the University Hospitals and Clinics are experiencing a quiet inhouse revolution; the metric system of scientific measurement will replace the artisan system based on feet and cups and stones. This move reflects the growing dependence of *medicine-as-an-art* on *medicine-as-a-science*. It may destroy some folkloristic memories, but to many it appears long overdue.

This decision will bring the hospital in line with the majority of the world's medical journals, that either require or prefer metric units. The U. S. government has not yet taken an official stand on metrication. In 1968, however, Congress did pass a bill directing the Secretary of Commerce to conduct a three-year study of the issue. The status of medical measurement in the U. S. may be considered to be reflected in the USP which started metric units in its fifth edition (1870) and (based on a decision of 1940) dropped the non-metric units in its fifteenth edition (1955).

Metric prescriptions were introduced at University Hospitals in 1940 and never caused any problems. The decision to drop non-metric units altogether was made by the Hospital Advisory Committtee in August 1970.

STANDARDIZATION BEGAN

In the early days of human endeavor, when each man took care of his own needs, a consistent system of measurement probably was not too important. As men started to trade and exchange products, standardized measurements were required. From the beginning, standardization of measurement among different groups seems to have been a major problem. Towns could enforce the use of standards on their own citizens and often had their standard foot or rod carved into the facade of their townhall. But a neighboring town that would not accept the other's supremacy would not accept its standards either. For centuries the forces of traditionalism have thus blocked the acceptance of a worldwide and rational system of measurements.

Early units of measurement were usually related to parts of the human body, such as the knuckle of the thumb (inch), the foot, the length of the arm (yard), or to common tasks: the area that a yoke of oxen could plow in a day (acre). Different purposes asked for different units, and their relations rarely showed a consistent pattern. There are 320 rods to the mile, 5½ yards to the rod, 3 feet to the yard and 12 inches to the foot. The advantages of the metric system are especially evident at this

Dr. Colenbrander is serving as a consultant to the University Hospitals Medical Records Committee during his stay as a Visiting Professor in the Department of Ophthalmology. He comes from the Department of Ophthalmology at Leyden University in The Netherlands.

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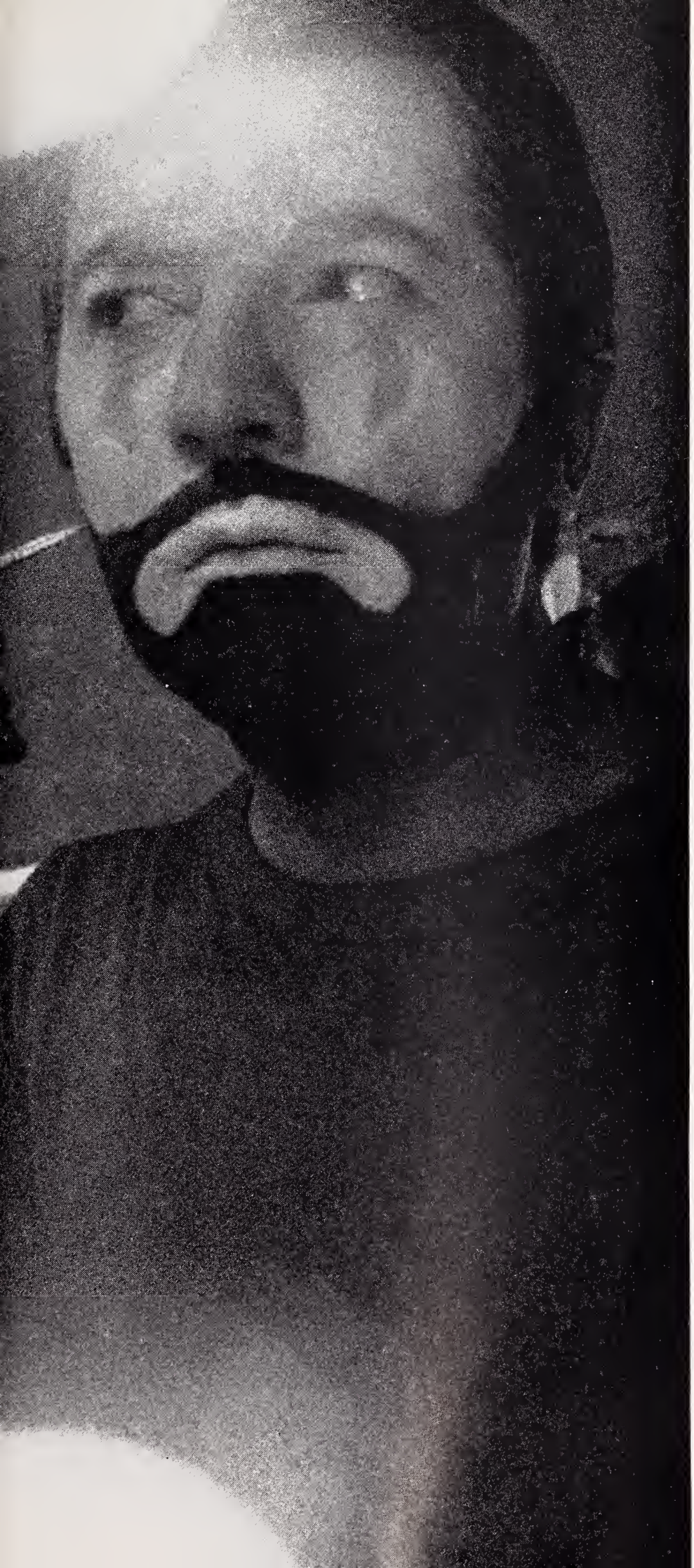
Pro-Banthine P.A. 30 mg. propantheline bromide in time-release form

Pro-Banthine 7½ mg. propantheline bromide Half Strength



Pro·Banthine®
(propantheline bromide)

Indications: Peptic ulcer, gastroenteritis, pylorospasm, biliary dyskinesia, functional hypermotility and irritable colon.

Contraindications: Glaucoma, severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly men with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal tolerated dosage is usually the most effective. For most adult patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

Pro-Banthine® 15 mg.
(propantheline bromide)
with
Dartal® 5 mg.
(thiopropazate dihydrochloride)

Indications: Peptic ulcer, spastic constipation, nonspecific gastritis, functional gastrointestinal disorders, pylorospasm, hyperhidrosis, irritable bowel syndrome, mucous or ulcerative colitis, functional diarrhea.

Contraindications: Glaucoma, severe cardiac disease.

Warnings: Pro-Banthine with Dartal should not be administered to patients who are under the influence of barbiturates, alcohol or narcotics. The drug should be administered cautiously to epileptic patients or those in depressed states, patients with liver disease and to pregnant women. Hypersensitivity to Dartal may occur rarely in patients with known sensitivity to similar drugs.

Side Effects: Dryness of the mouth, mydriasis, hesitancy of urination; less commonly extrapyramidal (restlessness, dystonia and signs of pseudoparkinsonism such as muscular rigidity, fixed facies, tremor, ataxia, festinant gait and drooling), parasympatholytic (blurred vision, xerostomia, hypotension, nasal congestion and constipation) and curare-like (loss of control of voluntary muscles, particularly the muscles of respiration) reactions. Rarely, leukopenia or allergic purpura. A generalized erythematous skin reaction may occur. Side effects characteristic of phenothiazines such as grand mal convulsions, altered cerebrospinal proteins, cerebral edema, potentiation of the effects of atropine, heat or phosphorus insecticides, autonomic reactions, endocrine disturbances, reversed epinephrine effect, hyperpyrexia or pigmentary retinopathy may theoretically occur but have not been reported with Dartal. Severe hypotension following recommended doses occurs more commonly in patients who are also afflicted by other medical disorders such as mitral insufficiency or pheochromocytoma, and particular attention should be paid to such a possibility although this has not been observed with Dartal.

Adult Dosage: One tablet three times a day.

Pro-Banthine® 15 mg.
(propantheline bromide)
with
Phenobarbital 15 mg.

Warning: May be habit-forming.

For *Indications, Contraindications, Precautions, Side Effects* and *Dosage* see Pro-Banthine. In addition, phenobarbital should be administered with caution to patients with liver disease, mental disturbances or a significant degree of hypoxia.

Pro-Banthine P.A.®
prolonged acting brand of propantheline bromide

For *Indications, Contraindications, Precautions* and *Side Effects* see Pro-Banthine.

Dosage Form: Capsule-shaped, compression-coated, peach tablets of 30 mg. for oral use.

Dosage: The recommended initial dosage is one tablet in the morning and one at night.

084

SEARLE

Research in the service of medicine.
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point: its units are always related by powers of ten. There are 1000 meters to the kilometer, 100 centimeters to the meter, and 10 millimeters to the centimeter (1000 millimeters to the meter).

The metric system was originally adopted by the French National Assembly in 1790. It was not the first rational system of measurement to be proposed. Several earlier ones, including one from the prestigious French Academy of Sciences, did not carry. The earliest known proposal for a decimal system of measurement is that of Simon Stevin, a Dutch hydraulic engineer of the early seventeenth century. As an inspector of dykes, Stevin tried to overcome the diversity of standards used by different townships protected by the same dyke. One may wonder whether the metric system would have been so successful had not Napoleon given it a powerful start by introducing it to all European countries he conquered. Even so, the acceptance was slow. In France the system was taught in all schools, but it took half a century before it was generally used. By that time another force had gained momentum: the rapid development of science and technology. These increased the need for a system of measurement that was easy to use (decimal) and accepted worldwide.

BRITAIN ADOPTS

Great Britain, having fought Napoleon successfully, did not follow the European continent in accepting the metric system. The Imperial system remained the primary system, although in the 1860's the metric system was officially recognized as a secondary one. Another century elapsed before, in 1965, the British government decided that the metric system should become the primary one. The pressure to make this move did not come from the scientific community, it came instead from industry out of fear it would lose its export position in an increasingly metric world. Other members of the Commonwealth had gone to it before or are following. The implementation is proceeding at due speed. Since March 1969, it has been illegal to dispense drugs in non-metric units. This year the monetary system has been decimalized. It is expected that by 1975 the U. S. will be the only major non-metric country in the world. (The other remaining non-metric countries are: Ceylon, Gambia, Guyana, Jamaica, Liberia, Malawi, Nigeria and Sierra Leone.) In 1821 the U. S. rejected the metric system "because it would be hazardous to deviate from the practice of Great Britain." The same argument could still be used today, this time in the opposite direction.

METRIC SYSTEM

The basic advantages of the metric system are threefold:

I. WORLDWIDE STANDARDS
II. DECIMAL SUBDIVISIONS
III. INTERRELATED UNITS

The basic standards for the metric system have undergone subtle changes since their adoption in 1790. At all times there have been those who favored standards based on an arbitrary decision (so the standard for the yard: the distance from the top of King Edgar's nose to the tip of his middle finger on his outstretched arm) and those that preferred "natural" standards (so the standard for the foot: 36 barley corns from the middle of the ear). The meter has gone through similar changes. Originally it was defined as 1/10 000 000th of the distance from the pole to the equator. Difficulties in accurately measuring this distance led the General Conference on Weights and Measures of 1889 to adopt an arbitrary standard: the distance of two lines engraved on a platinum-iridium bar kept in Paris. In 1960 the Conference went back to a natural standard: 1 meter = 1 650 763.73 times the wavelength of radiation emitted by the krypton atom. Such atomic standards presently are the best available. In 1967 an atomic standard replaced the age-old astronomical standard for the measurement of time. It is expected that the unit of mass will be changed to an atomic standard also. These refined standards are part of what is now known as SI (Système Internationale or International System), the version of the metric system adopted by all nations that are party to the General Conference on Weights and Measures.

In the metric system, units larger or smaller than the basic unit are derived by multiplying or dividing the basic unit by 1000 or powers thereof. (See Table I.) Standard prefixes are used to denote these powers.

TABLE I

Power	Prefix	Symbol	Power	Prefix	Symbol
1 000 000 000 000	tera	T	.001	milli	m
1 000 000 000	giga	G	.000 001	micro	μ
1 000 000	mega	M	.000 000 001	nano	n
1 000	kilo	k	.000 000 000 001	pico	p

Note: The use of powers of 10, other than 1000, is not recommended under SI, hecto (100), deca (10) and deci (.1) are rarely used, but the centimeter (.01) is unlikely to disappear because of its practical utility for many purposes.

Tables II, III, and IV list the metric units that will appear most often in medical texts. Special attention should be given to the use of the appropriate abbreviations, all common abbreviations are written with small letters and without a period. In long numbers the use of spaces between thousands is preferred to the use of a comma since on the European continent the comma is used as the decimal marker.

TABLE II

LENGTHS

kilometer	km	=	1000	m
meter	m	=	basic unit = 3.281 ft.	
centimeter	cm	=	.01	m
millimeter	mm	=	.001	m
micrometer	μm	=	.000 001	m
nanometer	nm	=	.000 000 001	m

Note: The term micron and the symbol μ (as often used in electron microscopy) are not recommended under SI, micrometer (μm) should be used instead. The term nanometer (nm) should be used instead of millimicron (mμ) and is preferred over the Angstrom (1 A = 0.1 nm). Do not confuse the old mμ with the SI μm.

TABLE IV

WEIGHT

kilogram kg	=	basic unit = 2.204 lbs
gram g (Gm)	=	.001 kg
milligram mg	=	.001 g
microgram μg (mcg)	=	.000 001 g

Note: Although the SI symbol for gram is g, Gm should be used in prescriptions to avoid any possibility of confusion with grains. In prescriptions mcg is generally used instead of μg.

In the original definitions of the metric system the kilogram is related to the measures of length and volume by being defined as the mass of one liter of pure water.

Weight is usually used to indicate mass, the SI units are given in Table IV.

Weight can also be used to indicate force. On the earth's surface the two interpretations are interchangeable. The "pure" SI unit of force is the Newton (N) (One Newton causes one kg to accelerate one m/second/second, 1 kg-force = 9.8 Newton).

TEMPERATURE is recorded in °C, which should be read as Celsius, not as centigrade. Water

TABLE III

VOLUME

		cubic meter m^3	=	basic unit	=	35.31 cu. ft.
liter l	=	cubic decimeter dm^3	=	.001 m^3	=	1.057 qt. (U. S.)
milliliter ml	=	cubic centimeter cm^3	=	.001 liter		
microliter μl	=	cubic millimeter mm^3	=	.001 cm^3		

Note: The term ml is preferred to cm^3 or cc. The term l is preferred to dm^3.

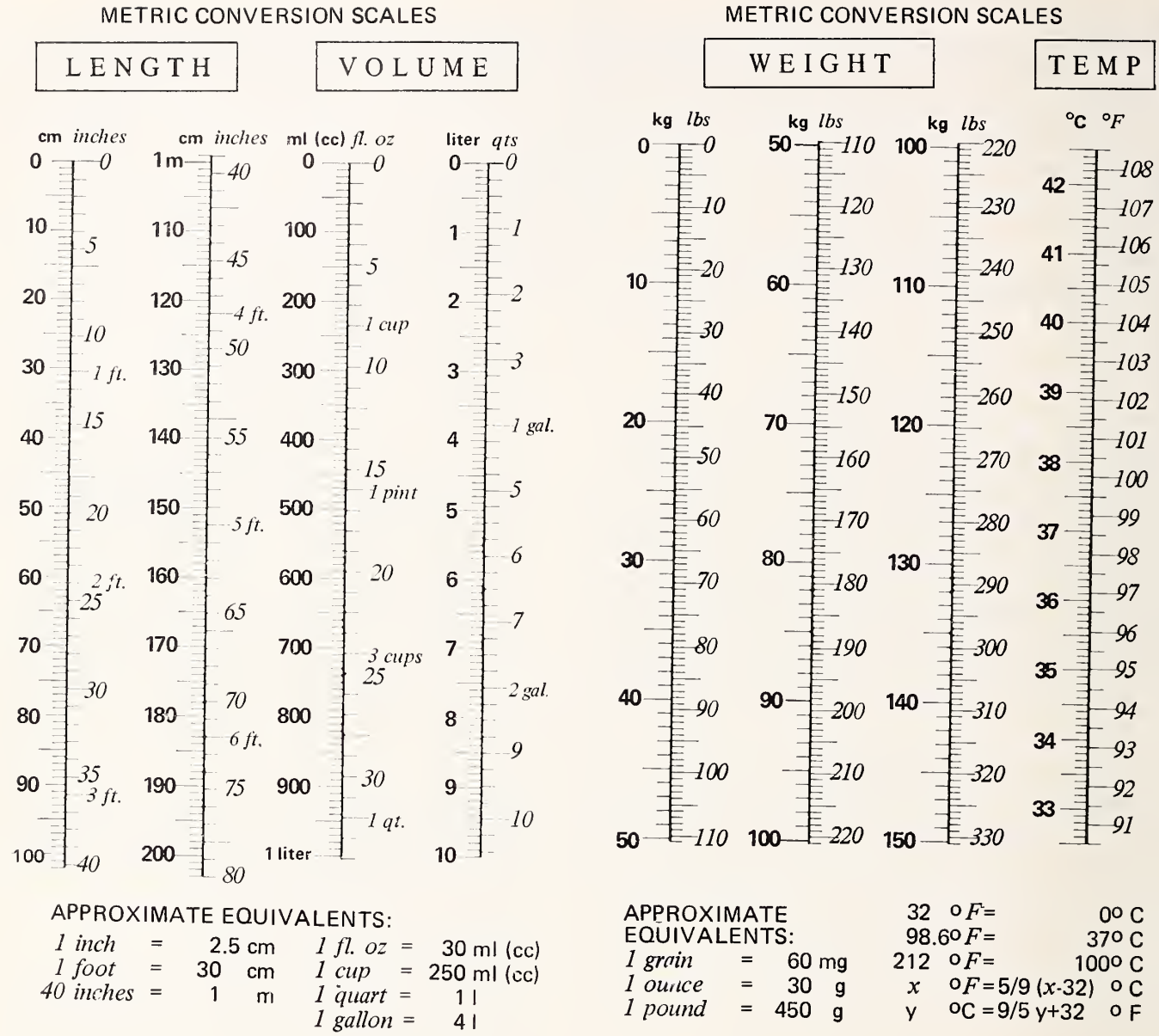

Figure 1

freezes at 0° C (32° F) and boils at 100° C (212° F). An interval of 5 degrees C equals an interval of 9 degrees F. Normal body temperature is 37° C. (98.6° F), a fever of 104° F is 40° C.

The change to the metric system will require some adjustment of old habits. Most of those who have experienced it agree that it is not more difficult than changing from a shift stick to an automatic transmission. To facilitate the change over a pocket conversion chart (see Figure 1) has been prepared, copies of which are available upon request.

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Metrication in medical journals. Conference of editors. Proc. Royal Soc. of Med. (London), **62**:423-430, 1969.

Metric medicines. Brit. Med. Journal, 1969, **1**:530, 1969.

Ritchie-Calder, Lord: Conversion to metric system. Scientific American, **223**(**1**):17-25, July 1970.

Metrication for U. S.? Editorial and five articles. Mech. Engin., **91**:11-25, 1969.

Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

The Iowa Medical Society Committee on Education and Hospitals has asked me to prepare for each issue of the JOURNAL some news or comment on Continuing Medical Education. I feel honored to be asked, and am pleased to accept the challenge.

Why has so much been written and heard the past few years about continuing education? Two factors are prominent: 1) the great advances in medical knowledge and skill the past 25 years mean that unless we add significantly and continuously to the *know-how* we carried away from our undergraduate and graduate medical years, we will be like Stanley Steamers on a Superhighway, and 2) the public (that is, our patients) is better informed, it expects more, and more than ever before in man's history, it is insisting on assurance as to our diagnostic and therapeutic skills.

Medical practitioners, by the very mantle of professionalism they wear, have always been concerned to know and practice that which best serves the patient's welfare. But until recent years, the process of "keeping up" was not so difficult, there was little that was new and effective. Now, the effort to *keep up* could itself be all-consuming if it were not that the demands for patient care keep most of our noses to the grindstone. With the physician shortage, plus the increasing demands for service by the public, a practitioner is under great pressure. Is *keeping up* to be just a dreadful monkey on one's back, like the growing mountain of claim forms in the office?

Fortunately, most practitioners recognize the pace and pressures of modern medicine and modern life, and accept the undoubtable necessity of keeping up-to-date. Similarly, the College of Medicine at The University of Iowa recognizes its increased responsibility to serve practitioners as they engage in a lifetime of medical learning. Hopefully, the evidences of our College's increased concern over the part it is to play in your continuing education will become increasingly visible. Learning new things and providing more effective patient care are challenges and joys to most of us, even though the process of change itself means our natural inertia must be overcome and our energy and funds must be expended. That we must each make that effort is clear, for otherwise, our consciences, our peers and our patients will give us no peace.

On pages 207-212 of this issue is a more lengthy discussion of some aspects of continuing education for those who wish a more thorough airing of the topic.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-4792.

Apr. 1-2	Biomechanics in Physiotherapy
Apr. 6-7	Hematology (State Hygienic Laboratory)
Apr. 7	Ophthalmology Clinical Conference
Apr. 9-10	In-House Conference for Practitioners
Apr. 17	Workshop in Basic Blood-Banking (Council Bluffs)
Apr. 19-24	Management of Maxillofacial Injuries
Apr. 28	Refresher Course on Cerebrovascular Disease
May 23	National Conference on Professional Education in Nuclear Medicine
May 25-26	Laboratory Management (State Hygienic Laboratory)
May 26	Refresher Course on Cerebrovascular Disease
May 26-27	Swimming Pool Management (State Hygienic Laboratory)

U. of I. College of Medicine

A series of conferences entitled, "The Community Fights Back," will be presented by the U. of I. College of Medicine during the coming four months. The first eight sessions are noted below:

Alcohol and Drug Abuse	*Sites*	*Marriage Failure—Social Crisis*
Apr. 10	University of Iowa Memorial Union, Iowa City	May 8
Apr. 17	Hotel Blackhawk, Davenport	May 15
Apr. 21	Holiday Inn South, Des Moines	May 19
Apr. 22	St. Anthony's Regional Hospital, Carroll	May 20

American Association of Medical Assistants

State of Iowa, Inc.

1971 State Convention
May 14, 15, 16
Sheraton Inn, Hwy. 18 West, Mason City, Iowa

"Rx for Better Living"

Friday, May 14

5:00-10:00 p.m. REGISTRATION—Main Lobby
Executive Council will meet at a time to be announced. (Sections C & D)
8:00 p.m. HOSPITALITY ROOM—Ballroom

Saturday, May 15

8:00-10:00 a.m. REGISTRATION—Main Lobby
8:00-8:30 a.m. CONTINENTAL BREAKFAST—Dining Room
8:30 a.m. HOUSE OF DELEGATES—Section C & D
10:15 a.m. COFFEE BREAK
10:30 a.m. GENERAL ASSEMBLY—Ballroom
Invocation, Rev. E. A. Hering
Pledge of Allegiance
Welcome
Representative, Cerro Gordo County Medical Society
Mayor Tom Jolas
Representative, Chamber of Commerce
Mildred Johnson, President, Mason City Chapter, AAMA, State of Iowa
President's Address
Colleen Proffitt, President, AAMA, State of Iowa
11:00 a.m. "20th Century HOPE for the Navajo"
W. V. Wulfekuhler, M.D.
12:00 NOON LUNCHEON—Ballroom
Invocation—Jo Popenhagen
Speaker—H. J. Roddy, M.D.—"Hypnosis"
2:00-4:00 p.m. EDUCATIONAL PROGRAM
Mini-Test (Room to be announced)
6:00-7:00 p.m. COCKTAIL HOUR
7:00 p.m. BANQUET—Ballroom
Invocation—Fran Jenkins
Master of Ceremonies—E. D. Kennedy, M.D.
Speaker—"Red" Blanchard—"Does a Brain Surgeon Need a High School Education?"
Installation of 1971-72 officers
(Balance of evening on your own)

Sunday, May 16

8:30 a.m. CONTINENTAL BREAKFAST—Dining Room
9:30 a.m. EDUCATIONAL PROGRAM—Ballroom
S. D. Haugland, M.D.—"Alcoholism"
Mrs. Hermana Hartley-Urquhart—"Rx for Better Living—The Woman's View"
12:00 Noon LUNCHEON—Ballroom
Invocation—Kathy Reilly
Committee Announcements—Marjorie Snyder, President, AAMA State of Iowa
Skit—Cerro Gordo County Women's Auxiliary
Entertainment—O.K. Singers
Post-Convention Board Meeting—Section C & D

Convention Chairman—Tenora Meyer
Convention Co-Chairman—Frances Cates
Program Chairman—Millie Peters

Annual Meeting Highlights

Now that you have studied the excellent program these Mason City girls have prepared I find it hard to believe you would need any urging on my part to take part in this annual Convention.

Did you notice the BIG NEW ITEM for Saturday afternoon? This is your opportunity to take the Mini-Test. There is a $2 fee to cover the cost of materials, etc.—and only you know the results. This test is controlled by numbers and you are the only one who knows your number. What better chance to check your Medical Assistant rating? They must know, by the first part of April, how many wish to take advantage of the Mini-Test. Please contact the Mason City girls if you are interested and do it RIGHT AWAY!

You need not be a member of AAMA, State of Iowa, to attend or take part in the Convention. We welcome you as a fellow Medical Assistant, and we hope we can show you how great it is to work together toward our common goal, better education for our members. As we achieve this goal in the paramedical field we are better prepared to serve the medical profession with knowledge and understanding. We are the "front line" of public relations; it is our responsibility to handle this assignment with dignity, and it requires the very best training available.

See *YOU* in Mason City! ! !

JEANNE D. GREEN

...in the presence of spasm or hypermotility, gas distension and discomfort, **KINESED®** provides more complete relief:

- ☐ **belladonna alkaloids—for the hyperactive bowel**
- ☐ **simethicone—for accompanying distension and pain due to gas**
- ☐ **phenobarbital—for associated anxiety and tension**

Composition: Each chewable, fruit-flavored, scored tablet contains: 16 mg. phenobarbital (warning: may be habit-forming); 0.1 mg. hyoscyamine sulfate; 0.02 mg. atropine sulfate; 0.007 mg. scopolamine hydrobromide; 40 mg. simethicone.
Contraindications: Hypersensitivity to barbiturates or belladonna alkaloids, glaucoma, advanced renal or hepatic disease.
Precautions: Administer with caution to patients with incipient glaucoma, bladder neck obstruction or urinary bladder atony. Prolonged use of barbiturates may be habit-forming.
Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.
Dosage: Adults: One or two tablets three or four times daily. Dosage can be adjusted depending on diagnosis and severity of symptoms. Children 2 to 12 years: One half or one tablet three or four times daily. Tablets may be chewed or swallowed with liquids.

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(from the Greek **kinetikos,**
to move,
and the Latin **sedatus,**
to calm)

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antispasmodic/sedative/antiflatulent

Spring peeper (tree frog, *Hyla crucifer*): this small amphibian can expand its throat membrane with air until it is twice the size of its head.

LETTERS TO THE EDITOR

Letters to the Editor are welcome from member physicians. This thoughtful discussion has been prepared by Daniel F. Crowley, M.D., Des Moines, a member of the JOURNAL'S *Scientific Editorial Panel. Dr. Crowley's position on therapeutic abortion differs from Society policy as established by the 1969 House of Delegates and reaffirmed in 1970. This material was submitted as an editorial, but the* JOURNAL *Publication Committee requested that it appear as a Letter to the Editor.*

Dear Editor:

In 1925, a 30-year-old man named Floyd Collins was trapped in a Kentucky cave. He lived for 18 days, but rescue attempts were futile. The story was front page news, and the nation mourned his death. In 1949, a child named Kathy Fiscus fell into an abandoned well in San Marino, California. After 52 hours of strenuous rescue efforts, the child was brought to the surface, dead. The news coverage was extensive, for the struggle to preserve a life is always a dramatic and arresting event. And at the end, thousands grieved. Recently three-year-old Alycia Hernandez, another California child, was recovered alive from a narrow 15 foot hole after five hours of intense rescue activity. This story, too, was front page news, and its happy ending a satisfaction for us all.

Sometime in the early Fall of 1970, a 2½ pound child was born in New York, and lived. At birth, his chances of survival were approximately 10 per cent, probably less than the chances of Floyd Collins, Kathy Fiscus or Alycia Hernandez. The name of the child is not known, for the newspaper account was brief, incomplete and quite inconspicuous. Nor did the account include any of the details of what must have been an exhaustive effort by the attending medical and nursing staffs, extending over many days and weeks, to save the child's life. Even so, you well might ask: So what? Babies smaller than 2½ pounds have been born before and lived. What's the point? Well, as a matter of fact, the foregoing is not the entire story. It should be added that an attempt had been made on the child's life: a doctor had attempted to kill the child, but failed.

What happened then? Was the doctor condemned for his act and brought to account? On the contrary, the attempt to kill the child was approved, at least in principle, by the State of New York, by some of the most influential newspapers in the country, by many clergymen, by the Women's Liberation Movement (whatever or whoever that is), by both the Republican and Democratic party platforms in Iowa, and by the New Left. And, incredible as it may seem, you can add to that list the American Medical Association and the Iowa Medical Society, both guardians of the ethical and moral standards of the practice of medicine.

All of this requires an explanation, although admittedly it is somewhat difficult. To begin with, the doctor in question was an abortionist—a particular breed that, until recently, was considered a disgrace to the medical profession but that now is recommended as worthy of our praise. On the other hand, the 2½ pound child, at the time of the assault, was an unborn child—not a child at all, it is said, but a fetus, a collection of embryonal cells. And on that point, sooner or later, any discussion inevitably reaches dead-end, for there we veer away from fundamentals into semantics. However, whatever the semantics, that unborn child (or fetus, if you wish) was not just an appendage or component of its mother's body, but a new and original creation with its own unique and distinctive genetic structure. Let there be no uncertainty or confusion about that! Nevertheless, put all that aside, and it still seems as if the news media have somehow missed a dramatic, even awesome, story: the birth of an unnamed, unwanted child against great odds, and its successful struggle to survive.

Upon reflection, however, the truly significant story seems to be not the doctor, nor even the child, but rather the madness of a society that conspired to destroy the child, yet a few hours later, after its passage through the birth canal, spared no effort to preserve its life.

DANIEL F. CROWLEY, M.D.

1971 IMS ANNUAL MEETING

HOUSE OF DELEGATES—APRIL 25 & 28
GENERAL SESSIONS—APRIL 26 & 27
HOTEL FORT DES MOINES

Editorials

COMMENTS FROM NEW EDITOR

I accept the responsibilities of Scientific Editor of the JOURNAL OF THE IOWA MEDICAL SOCIETY. The men who have held this position through the years have developed a JOURNAL in which the medical profession of Iowa should have a large measure of pride. Communication to the members of our Society is difficult in many respects. I am sure much of the mail we receive is never opened, least of all read with a purpose to gain information. The JOURNAL serves as a compilation of news and reports of the activities of the Society, as well as a means for members of the profession to share their professional experiences—failures as well as successes. Review articles, furthermore, serve to "jog the memory" . . . to stimulate the thinking processes toward the goal of providing the best possible medical care.

It will be a pleasure, as well as the purpose, for the Scientific Advisory Committee of the JOURNAL to stimulate the submitting of timely and valuable scientific articles to the Society, and to select for publication those which will serve the greatest numbers of the profession. The editorial comments will provide a mechanism for voicing the attitudes of the Society as a whole, not the feelings of an individual who might have a pet project or particular whim. Such comments as these shall have to be regarded as "Letters to the Editor," and will require the signature of the writer. Some editorial comments will bring attention to notable achievements or advances in the world of medicine.

Dennis H. Kelly, Sr., M.D., retires from the position of Scientific Editor with a fine record of 10 years of service in this capacity to the medical family of Iowa. Some years before that, he was associate editor, working with Lee Forrest Hill, M.D. When Dr. Kelly became editor, replacing Everett George, M.D. (editor 1946-1961), he devoted his time energetically and faithfully in the face of physical adversity. His job has been "well done." It is our wish that his second retirement (the first from a very busy practice of pediatrics) will be happy. I shall welcome any help and advice he may wish to give, as well as any editorials he may feel moved to submit.

The Editorial Advisory Committee also will depend much on Mr. Donald L. Neumann, managing editor, and the staff. These fine people assemble the publication, nourish it, and "put it to bed." Without them, it would not exist. Together we hope to give the medical profession of Iowa, as well as all readers, a JOURNAL of continuing value and interest.

M. E. ALBERTS, M.D.

ANNUAL MEETING THIS MONTH

The 1971 Annual Meeting of the Iowa Medical Society is just a few days from now. It will occur in Des Moines Sunday, April 25, to Wednesday, April 28.

The Society's Annual Meeting has a unique kind of appeal. In addition to a worthwhile program of scientific and socio-economic presentations, it provides the opportunity for Iowa physicians to renew friendships with former colleagues, classmates, etc. Too, it affords the

Editorials continued...

chance to compare notes with practitioners whose manner of treating patients shares a geographical similarity.

Commendation is due the 1971 Program Committee for assembling a two-day *meat and potatoes* program. The topics scheduled for consideration (physicians' assistants, organ transplantation, drug abuse, etc.) are timely, and the speakers have topflight credentials. (The complete program for the 1971 Annual Meeting appeared in the March issue of the JOURNAL.)

Members of the Program Committee are W. R. Bliss, M.D., Ames, chairman; T. A. Burcham, M.D., Des Moines; C. R. Aschoff, M.D., Cedar Rapids; R. M. Caplan, M.D., Iowa City; J. F. Bishop, M.D., Davenport, and Y. A. Inankur, M.D., Council Bluffs.

Principal among the items to be considered by the IMS House of Delegates Sunday and Wednesday will be the proposed Iowa Foundation for Medical Care. Authorization was given for this kind of mechanism in Iowa at a special meeting of the House in January. Now the House must ratify the organizational language. Sessions of the House are open to all interested members.

General sessions Monday and Tuesday will cover topics mentioned earlier and others. Nine special seminars (on cancer, pediatrics and drugs) will be presented Monday afternoon in a manner similar to last year's popular series. Four special demonstration and self-assessment quizzes will be offered as well during this time segment.

Nuclear medicine, medical malpractice, quality of care and family practice in Iowa are topics on the Tuesday morning agenda. Tuesday afternoon's schedule will be devoted entirely to the use of paramedical personnel.

The need for Iowa physicians to be well informed has never been more apparent. One of the good ways to become knowledgeable about factors which may bear or are bearing on the practice of medicine in Iowa is through attendance at the IMS Annual Meeting. We encourage you to attend.

THE USE OF KETAMINE HYDROCHLORIDE

Since its introduction to clinical use, ketamine hydrochloride (Ketaject®; Ketalar®) has been a useful adjunct in the care of many patients, particularly, severely burned children. Many of these children present difficult anesthesia problems. Ketamine allows us to handle these children more simply and with less discomfort to them. This drug has many advantages which make it easy to use. Ketamine causes little cardiovascular or respiratory depression, it has a rapid onset of action, provides good analgesia, and, ordinarily, protective reflexes are preserved so the airway is maintained. It can be given either intravenously or intramuscularly.

A major disadvantage of ketamine that has not been emphasized enough is hallucinations. These have been reported in adults but supposedly are not a problem in the pediatric patient. The incidence of hallucinations following ketamine in our experience has been higher than we expected. Over 80 per cent of unpremedicated adults experienced hallucinations or illusions. In addition, three patients had recurring hallucinations ("flashbacks")—one reporting episodes as late as three months after receiving a single dose of ketamine. Several children complained to their parents of horrifying dreams. However, we were unable to elicit this during our interview with the children, and thus we cannot be certain of the incidence of hallucinations in children. The incidence and severity of hallucinations in children has been greater than we expected. One 11-year-old boy, for example, hallucinated for more than 13 hours after receiving ketamine for a relatively minor out-patient procedure.

EEG's recorded on 12 volunteers receiving a

single dose of ketamine were interpreted as "consistent with metabolically or toxically induced changes in cellular metabolism." The duration or significance of these EEG changes are not known and deserve further investigation.

Ketamine has undisputed advantages as an anesthetic agent. There is a clinical impression in our Burn Unit that several patients are alive today because of ketamine. Therefore, we will continue to use it, cautiously, in carefully selected cases. Finally, in view of the hallucinogenic nature of the drug, we feel it should be carefully stored and dispensed to prevent nonmedical use.

A. S. NORRIS, M.D., *Professor*
Department of Psychiatry
R. D. BASTRON, M.D., *Assistant Professor*
Department of Anesthesia

UNIVERSITY ISSUE

The April issue of the JOURNAL has by tradition been identified as the University Issue. This is something of a misnomer inasmuch as University representatives submit material regularly and said material is used in the JOURNAL throughout the year.

Nonetheless, the special designation is appropriate for it demonstrates one of the numerous ways in which the College and the Society cooperate in the interest of medical education.

PRENATAL GENETIC DIAGNOSIS

At some time during pregnancy most women show a fear of bearing a deformed or mentally defective child. Prenatal genetic diagnosis provides possible new techniques to allay this fear. Milunsky* *et al,* of Massachusetts General Hospital, Harvard Medical School and Tufts University School of Medicine, have reviewed this new facet of medical progress.

The cellular pleomorphism of amniotic fluid seen immediately after amniocentesis resolves in culture over one to four weeks into a cell line which may be predominately fibroblastic, epithelioid, or mixed. These amniotic-fluid cells are of fetal origin and derive from fetal skin and amnion. The cell cultures are more likely successful early in pregnancy.

The cytotogenic study of cultured and noncultured amniotic fluid cells has become an established and practical diagnostic procedure. When high quality control is established fetal sex and karyotype can be accurately determined. The authors declare that significant chromosomal abnormalities (Down's, Turner's, Klinefelter's syndromes, as well as X-linked disorders) have been estimated to occur once in every 200 live births. Thus, the potential of such studies becomes quite evident.

Furthermore, specific intrauterine diagnosis, among the disorders of lipid metabolism, mucopolysaccharidoses, amino acid disorders, and aberrations of carbohydrate metabolism can now be definitely made by analysis of the biochemical activities of the cultured amniotic-fluid cell. In these groups of inborn errors, invariably a family history of the particular disease is the reason for diagnostic amniocentesis. The authors report on 40 or so disorders of metabolism which have been diagnosed, or are potentially diagnosable, by these techniques. Granted, the multiple biochemical and cultured considerations involved in prenatal diagnosis are very complex, and a clear understanding is crucial to informed interpretation of data.

Improvement of techniques and standards in fetology and neonatology will afford the medical profession an even better opportunity to understand the complexity of life. It is a new responsibility with great medical, moral, legal, and economic ramifications. The problems and implications of this responsibility is one that must be shared with society.

* Milunsky, Aubrey, *et al:* Prenatal genetic diagnosis. NEW ENG. J. MED., **283**:370-1381, 1441-1447, 1498-1504, Dec. 17, 24, and 31, 1970.

THE DOCTOR'S BUSINESS

YOUR FINANCIAL RECORDS

LARRY E. LEAVERTON
Des Moines

Whether you are practicing as a solo practitioner, a partner in a partnership or group, or a doctor employee in a professional corporation, complete and accurate financial records are necessary. The reasons?

(1) **For tax purposes.** The Internal Revenue Service demands complete records of all income received, and expenses and other deductions claimed.

(2) **For management of the practice.** Medical fees are not set quite as precisely as the manufactured product which takes into account costs of materials, direct labor, general overhead and a fair profit but there are benefits in knowing the costs involved in various services, and in managing the practice as efficiently as possible.

(3) **For future planning.** To make decisions such as expanding your facilities, adding an associate, or decisions affecting your retirement.

The usual financial statements applicable to a medical practice are the Profit and Loss or Operating Statement, and the Statement of Net Worth or Statement of Capital. The Profit and Loss Statement is a report of income and expenses covering a given period of time such as one month, one quarter or one year. The Statement of Net Worth or Statement of Capital shows the Assets, Liabilities and Capital, or the financial position of an individual, partnership or corporation as of a certain date, such as the beginning or end of a month, quarter or year.

Statistical data to assist in evaluating your practice can be obtained from this information. How does your practice compare with previous years? How does it compare with your colleagues? In these days of rising costs there is interest in the overhead percentage, which is the percentage of gross income spent in operating the practice. Overhead percentages will average from 35 to 40 per cent but will vary depending on the type of practice and specialty. A heavy office practice requiring an extensive layout, expensive equipment and a large staff will run higher, for example, than a surgical specialty with smaller space and personnel requirements. One thing that must be remembered is that while office expenses have increased substantially, gross income has also increased due to increased productivity and fee increases. This has caused the overhead percentage in most offices to remain fairly constant or show only a slight increase. The percentage of collections is an important statistic to measure the effectiveness of your credit procedures. While a large portion of today's fees are paid by third parties and are presumably 100 per cent collectible, many offices are lax on follow-up on delinquent accounts. The average established practice in Iowa should collect 95 to 98 per cent of the fees charged.

Your financial records for the year should also tell you what happened to the adjusted Gross Income (gross receipts from your practice less practice expenses, plus nonprofessional income) that you reported for tax purposes. The first category of expenses to be deducted, referred to as "Other Deductions," are interest, state and local taxes, contributions, medical and investment expense. Then, personal living expenses, life insurance premiums and Federal Income Taxes. The remainder represents your Net Gain for the period or the amount by which your Net Worth has increased. The Net Gain may have been invested in new office equipment, a new automobile, capital improvements on your residence, invested in stocks, real estate, your retirement plan, in payments on notes or mortgages, or reflected by an increase in your bank accounts.

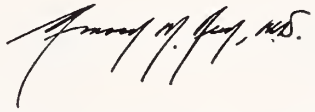
Your financial records should include a complete up-to-date listing of all insurance carried—life, health and accident, medical, household and office coverage for periodic review and analysis.

Finally, your financial records should provide information to assist you in your future planning—for eventual retirement and for your family in the event of illness or an untimely death. For an attorney, trust officer and other advisors to assist with a will or an estate plan without complete financial information is analogous to a physician making a difficult diagnosis with no case history.

While most doctors normally delegate the accumulation and recording of this data, they should have a general understanding of the information contained on their financial statements.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

How You Can Stop an Alcoholic from Drinking

This item adapted from the Newsletter of the Iowa State Commission on Alcoholism—November, 1970.

Help for the problem drinker is now so readily available in Iowa that *anyone* can obtain it.

If you are concerend about someone whose drinking is causing problems, telephone the nearest *Alcoholism Service Center* (see page 234) and explain the case.

A professional will be dispatched to work on the case or the patient will be asked to visit the nearest local office. If the case requires medical attention—even hospitalization—this service can be provided even if the patient is without funds. State and county money is now available under Iowa law to pay for treatment and recovery.

In most instances, treatment and recovery will take place within the local community. Experience has shown that confinement in a distant hospital is seldom necessary. All of the resources an alcoholic needs for his or her recovery are virtually on his doorstep! Iowa is one of the nation's foremost states in providing local help for men and women whose drinking has become burdensome to themselves, their families, their employers, their community.

IS RECOVERY LIKELY?

No alcoholic is ever beyond hope. While alcoholism can be a fatal illness if neglected, most problem drinkers respond readily to experienced counseling. We are convinced that when the right help is provided—in the right place, at the right time—recovery begins.

Compulsive drinking is no longer regarded as moral weakness, willfulness, "cussedness" or as a condition to be punished. The compulsive drinker has a psychological—and sometimes a physical —"need" for alcohol. Consequently the urge to drink continually overpowers him. He cannot be expected to eradicate this urge until the nature of his illness is explained to him. Once this is done, he often accepts professional guidance leading to recovery.

No medical "cure" exists for the illness of alcoholism, but accepted estimates show that 500,000 of the nation's 6,000,000 alcoholics have arrested their alcoholism to the point of total abstinence. The need to drink has been eradicated completely. Statistics also indicate that no recovered alcoholic can ever safely drink again. One drink of any substance containing alcohol may awaken the urge to go on drinking. Even a bottle of beer, because it contains a half ounce of alcohol, can trigger the down-hill process all over again.

HOW DOES A SERVICE CENTER FUNCTION?

A typical example of local help for a problem drinker is the case of Harry C. This man had lost his job. He had issued checks he could not honor. His wife, her patience exhausted, had filed for divorce. His eldest son had threatened to commit his father to a mental hospital.

At this point Harry's wife contacted her nearest Alcoholism Service Center. The counselor assured Mrs. C. that her problem was not unusual, that in most cases like Harry's the alcoholism could be arrested without lengthy hospitalization, that appointments would be set up with necessary local agencies, a local doctor and Harry's former employer.

Harry, himself, then accompanied his wife to the Service Center. He agreed to enter the neighborhood halfway house for a trial period. Harry's ex-boss reemployed Harry. Welfare provided temporary assistance. Prosecution over the bad checks was postponed after the Service Center counselor assured the concerned parties that Harry had sought professional help for his alcoholism. Harry is now enjoying his third month of sobriety and is slowly making amends.

Harry's case is typical. By coordinating the help of Harry's wife, his physician, his employer, his lawyer, the halfway house and county welfare, the Service Center was able to assist Harry in establishing a stable life style without alcohol. His chances are now excellent.

If you have a patient with a similar problem, your first move is a telephone call to your local Service Center.

Alcoholism Service Centers

Ames Regional Alcoholism Center, Inc.
James Martin, Director
408½ Douglas
Ames, Iowa 50010
(515) 232-3206

Southeast Iowa Alcoholic Guidance Commission
Oscar Davis, Director
Des Moines County Mental Health Center
Third and Court Street
Burlington, Iowa 52601
(319) 752-4561

***Citizens Committee on Alcohol and Drug Abuse**
William Harnish, Director
602 Guaranty Bank Building
Cedar Rapids, Iowa 52401
(319) 366-2431

***Clinton County, Iowa Alcoholic Guidance Commission**
Stan Tyler, Director
Suite 310-Howes Building
Clinton, Iowa 52732
(319) 243-2124

***Scott County Alcoholism Research Foundation**
James Donnelly, Director
1535 West Pleasant Street
Davenport, Iowa 52804
(319) 324-2251

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***Des Moines-Polk County Commission on Alcoholism**
Arthur Havens, Director
1408 Pleasant Street
Des Moines, Iowa 50314
(515) 282-1156

***Alcoholism Information Center**
Al Sourley, Director
721 Bluff
Dubuque, Iowa 52001
(319) 556-1303

***North Central Alcoholism Research Foundation**
Lyman Laws, Director
614 Central Avenue
Fort Dodge, Iowa 50501
(515) 573-8197

***North Central Detoxification and Rehabilitation Center**
Ed Lee, Director
523½ Washington
Iowa Falls, Iowa 50126
(515) 648-4432

Iowa City-Johnson County Citizens Committee on Alcoholism
C. C. Bradshaw, Director
2619 Muscatine Avenue
Iowa City, Iowa 52240
(319) 377-9775

Alcoholism Coordinating Center
Ken Bakker, Director
101 South Taylor
Mason City, Iowa 50401
(515) 424-2391

***Central Iowa Foundation for Alcoholism**
Jack Bentley, Director
Jasper County Court House
Newton, Iowa 50208
(515) 792-2302

***Siouxland Council on Alcoholism**
Robert Schoenewe, Director
St. Joseph Hospital
Second Medical
Sioux City, Iowa 51104
(712) 277-7009

***Northwest Iowa Alcoholism Service Center**
Jeff Voskans, Director
Spencer Municipal Hospital
Spencer, Iowa 51301
(712) 262-5273

***Northeast Council on Alcoholism**
Floyd Gardner, Director
412 Marsh Place Building
E. Fifth and Sycamore
Waterloo, Iowa 50703
(319) 235-6571

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* Halfway House Available.

Morbidity Report for Month of February 1971

Diseases	Feb. 1971	1971 to Date	1970 to Date	Most February Cases Reported From These Counties
Amebiasis	1*	1*	0	Clinton
Brucellosis	1	2	3	Linn
Chickenpox	752	1493	1884	Polk
Conjunctivitis	30	45	44	Cedar, Polk
Encephalitis				
Viral	1*	2	0	Scott
Gastrointestinal viral infection	1310	2347	64	Crawford, Winnebago
German measles	50	120	622	Polk, Winnebago
Gonorrhea	414	735	685	Polk
Hepatitis				
Infectious	20	59	61	Pottawattamie
Serum	5	5	0	Polk
Impetigo	40	92	120	Floyd, Polk
Infectious mononucleosis	108	190	145	Johnson
Malaria, imported				
P. vivax	3*	6	4	Black Hawk, Chickasaw, Polk
Measles	156	194	21	Appanoose, Davis, Mahaska, Tama
Meningitis				
Bacterial	1	1	0	Linn
Echo 9	1	3	0	Johnson
Viral	2*	2	0	Johnson, Monroe
Mumps	401	758	823	Des Moines, Hardin, Polk, Van Buren
Pneumonia	88	185	161	Scott
Rabies in animals	15	55	16	Scattered
Rheumatic fever	4	13	7	Butler, Emmet, Sioux, Webster
Roseola	2	2	0	Dubuque, Winneshiek
Salmonellosis				
S. newport	4	5	1	Scott
S. oranienburg	1	1	1	Polk
S. paratyphi B	1	1	0	Woodbury
S. senftenberg	1	1	0	Pottawattamie
S. typhimurium	1	2	4	Muscatine
type unspecified	1	1	0	Pottawattamie
Shigellosis				
S. flexneri	1	1	0	Black Hawk
S. sonnei	2	4	23	Polk
Streptococcal infections	702	1247	1612	Johnson, Polk
Syphilis	53	89	76	Polk
Tuberculosis, active	15	22	14	Scattered
Whooping cough	3	3	3	Dubuque, Kossuth

* Delayed

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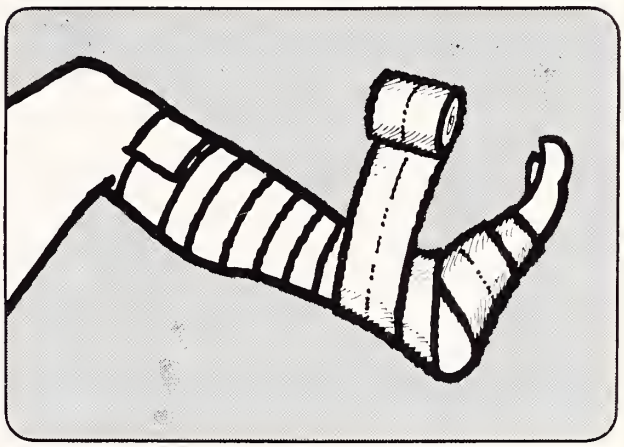

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Address .....

City .....

State ..... Zip .....

MEDICAL MEETINGS

CONTINENTAL U. S.

Apr. 1-3 **Postgraduate Course on Pediatric Immunology**, University of Wisconsin Medical Center, Madison.

Apr. 2-3 **5th National Congress on Socio-Economics of Health Care**, Caesar's Palace, Las Vegas.

Apr. 5-6 **2nd Annual Cleveland Clinic Sports Medicine Symposium**, Cleveland Clinic Educational Foundation, Cleveland.

Apr. 5-6 **22nd Annual Symposium on Ophthalmology sponsored by University of Kansas School of Medicine**, Battenfeld Auditorium, Kansas City, Kansas.

Apr. 5-9 **Postgraduate Course on Recent Advances in Cardiovascular Diseases sponsored by American College of Physicians**, Mt. Sinai School of Medicine, New York.

Apr. 12-14 **Postgraduate Course on Anesthesiology sponsored by University of Kansas Medical Center**, Battenfeld Auditorium, Kansas City, Kansas.

Apr. 14-15 **Symposium on Anesthesiology sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

Apr. 14-16 **Postgraduate Course on Management and Care of Respiratory Insufficiency sponsored by University of Colorado School of Medicine.**

Apr. 15-16 **Postgraduate Course on Recent Advances in Clinical Pediatrics**, University of Nebraska Medical Center, Omaha.

Apr. 17 **Regional Conference of Omaha Ostomy Association**, Prom Town House, Omaha.

Apr. 18 **One-Day Conference on Allied Health Manpower sponsored by American Academy of Pediatrics in cooperation with American Nurses Association and American Association of Medical Assistants**, Chase-Park Plaza, St. Louis.

Apr. 19-21 **Annual Spring Session of American Academy of Pediatrics**, Chase-Park Plaza Hotel, St. Louis.

Apr. 19-21 **3rd Allied Health Postgraduate Course in Diabetes sponsored by American Diabetes Association in cooperation with University of California**, San Francisco.

Apr. 19-21 **Postgraduate Course on Clinical Pharmacology With Emphasis on Newer Drugs sponsored by American College of Physicians**, Americana Hotel, New York.

Apr. 21-23 **Postgraduate Course on Management and Care of Respiratory Insufficiency sponsored by Colorado-Wyoming Regional Medical Program and University of Colorado School of Medicine**, Denver.

Apr. 22-23 **Postgraduate Course on Hematology sponsored by University of Nebraska Medical Center**, Omaha.

Apr. 23-24 **28th Annual Meeting of American Geriatrics Society**, Ambassador Hotel, Chicago.

Apr. 25 **AMA Conference on Long-Term Care—Management of Patient in Long-Term Care Facility**, Drake Hotel, Chicago.

Apr. 26-29 **8th Annual Reserve Forces Medical Symposium jointly sponsored by Air National Guard and Air Force Reserve**, Shamrock Hilton Hotel, Houston.

Apr. 26-30 **Postgraduate Course on Alcoholism and Chronic Liver Disease sponsored by American College of Physicians**, Shattuck Hospital, Boston.

Apr. 29-May 1 **Postgraduate Course on Dermatology in General Practice sponsored by University of Colorado School of Medicine**, Denver.

May 3-4 **Postgraduate Course on Coronary Artery Disease—Medical and Surgical Management sponsored by University of Kansas Medical Center**, Battenfeld Auditorium, Kansas City, Kansas.

May 3-4 **Seminar on Energy Metabolism and Regulation of Metabolic Processes in Mitochondria sponsored by University of Nebraska Medical Center**, Omaha.

May 3-6 **19th Annual Clinical Meeting of American College of Obstetricians and Gynecologists**, San Francisco.

May 5-8 **15th Annual Postgraduate Course on Fractures and Other Trauma sponsored by Chicago Committee on Trauma and American College of Surgeons**, John B. Murphy Auditorium, Chicago.

May 6-8 **Mid-Central States Orthopedic Society**, Broadmoor Hotel, Colorado Springs.

May 7-9 **Medical Legal Conference sponsored by American College of Legal Medicine**, Royal Orleans Hotel, New Orleans.

May 10-14 **Postgraduate Course on Intensive Care Units sponsored by American College of Physicians, St. Vincent's Hospital and Medical Center of New York**, New York.

May 12-13 **Postgraduate Course on Practical Dermatology sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

May 13-14 **Postgraduate Course on Oral Surgery sponsored by University of Nebraska Medical Center**, Omaha.

May 14-15 **16th Annual Trauma Day sponsored by University of Nebraska Medical Center**, Omaha.

May 17-20 **Symposium on Otorhinolaryngology for Non-Otorhinolaryngologists sponsored by University of Nebraska Medical Center along with Other Schools in Big Eight**, Fountainhead State Lodge, Eufaula, Oklahoma.

May 19-20 **Symposium on Contact Lens sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

May 19-21 **Postgraduate Course on Immunologic Concepts of Hypersensitivity in Man sponsored by American College of Physicians**, State University of New York, Buffalo.

May 20-22 **Pulmonary Thromboembolism—1971 sponsored by University of California School of Medicine, San Diego and American College of Chest Physicians**, San Diego.

May 24-28 **Postgraduate Course on Clinical Endocrinology—Physiological Basis for Current Diagnostic and Therapeutic Procedures sponsored by American College of Physicians**, University of Michigan Medical Center, Ann Arbor.

May 26-28 **Postgraduate Course on Clinical Auscultation of Heart sponsored by American College of Physicians**, Georgetown University Hospital, Washington, D. C.

ABROAD

Apr. 30-May 20 **Medical Seminar Cruise to Mediterranean sponsored by Department of Postgraduate Medicine, Albany Medical College**, Ports of call include Casablanca, Naples, Genoa, Cannes, Barcelona, and Lisbon.

May 1-8 **Diving Medicine Course for Physicians sponsored by National Association of Underwater Instructors, Underwater Explorers Club**, Freeport, Grand Bahama.

Woman's Auxiliary News

President's Message

As this is written (March 1), I want to thank all of you who have gotten your reports in ahead of deadlines. There are many "housekeeping" details to whip into shape these last few weeks before April.

February weather wrecked some plans. It was impossible for me to get to Des Moines February 22 to attend a luncheon given by the Iowa Veterinary Auxiliary. Jeanne Coughlan, bless her, answered my S.O.S. call at 7 a.m. and said she would represent our Auxiliary gladly. I wired my regrets to the IVA secretary, Mrs. Krichel.

Mary Smith answered a request to attend the funeral of Mrs. S. S. Westly, state president in 1945 from Manly, who died February 15. I appreciate Mrs. Osten's call to inform me. Mrs. Westly's daughter, Mrs. Douglas McPeak, lives at 4627 Drexel Avenue South, Minneapolis 55424.

So, again my gratitude goes to all of you for the many beautiful, kind things you have done this year to implement Auxiliary activities and fellowship.

I am looking forward to seeing 1970-71 officers, members and guests at our Annual Meeting. You have never met a national representative like Lela May Young who will "show and tell" us about Auxiliary work far and wide. Dr. John W. Eckstein, as dean, will speak to us about "The College of Medicine." It will be a satisfying experience to have authentic first hand information.

Since Ecology is one of our paramount interests this year, I think we are very fortunate to hear Mr. Elmer P. Wheeler, Manager, Environmental Health, Monsanto Company, St. Louis, Mo., talk about the business of pollution. He is also an IMS featured speaker.

To extend our service beyond national boundaries, we have elected to help Iowa's sister state, Yucatan, in the Alliance for Progress program. Jeanette Westfall, the "fireball" secretary, is just back from a trip to Yucatan so you will hear another first hand account of what is happening there, including our participation to date.

Area and Local Arrangements Committees are working hard to plan luncheons and social activities for your enjoyment. I urge county presidents and committee chairmen, especially, to come for a "recharging battery" experience.

Before signing off as your President, thank you for giving me this opportunity. It's been a great, enriching experience which I shall always cherish. To the IMS Board of Trustees and our efficient staff, my grateful thanks for loyal cooperation and advice. To my predecessors thanks for your never failing inspiration and support, and to my successors—a promise to continue serving in any way that will benefit them and the Auxiliary.

MARION PREWITT

NUTRITION—An Old Subject With a New Slant

(Nutritionist Ruth Tenney presented the following report at the January Board meeting.)

Great progress has been made in improving health of people! Proper function of body organs, mental attitudes and general good health and hygiene habits are factors affecting health. The role of nutrition is now recognized as one of the major environmental factors.

The lack of knowledge in the science of "feeding the population properly," became apparent during World War I. The criteria, in sending food to the European allies, was energy (or calories) and protein. After the war, the League of Nations formed a Commission on Nutrition and member governments established their own councils. Standards were established and World War II was a stimulus in the development of guides.

In 1943 the Food and Nutritions Board of the National Research Council published a dietary allowance. The U. S. Food and Drug Administration developed a minimum daily requirement, with the primary purpose of labeling foods which laid claim to meeting special dietary requirements. The U. S. Department of Agriculture suggests a food plan based on these four groups: bread and cereals; two of milk or dairy products; four of fruits and vegetables; and two of meat or meat substitutes.

These groups working on common problems, fi-

nally gave the nutritionist a *peg to hang her hat on.* Food guides are recommended allowances—not standards; they are goals—not requirements. All of the figures have a generous margin of safety.

We are becoming acutely aware of malnutrition—over-nutrition and under-nutrition—in underdeveloped countries and in our midst. Both are hazardous to health and physiological function; impairments occur when we fail to obtain the essential nutrients in the proper amount and balance.

The perplexing problems of food and nutrition can be medical, economic, political and educational. Until the economic situation is corrected and the family counseled, poverty and malnutrition will go hand in hand.

Malnutrition isn't always associated with abject poverty—ignorance and indifference exist in all social strata. Alcoholism, drug abuse and mental illness all produce a secondary malnutrition. A very high per cent of youngsters in the U. S. suffer from such full blown malnutrition that their learning potential is jeopardized. Many "slow learners" may in fact be poorly nourished—and the fatigue and lassitude they display may be symptoms directly related to improper eating habits, rather than a reflection of their intelligence. Some mental retardation is tied to poor and improper nutrition during pregnancy.

Dr. Ellis, assisted by Dr. White, from the Department of Food and Nutrition of the AMA, presented a panel discussion at the Fall Workshop in Chicago. Their nutrition research has produced some new and stimulating facts. Dr. Ellis believes that nutrition is basic to how we look, act and feel, and that each stage of life is dependent on what preceded it.

Nutrition of the fetus begins in utero—even a step earlier in the reproduction cycle. The cell nutrition of the sperm and ovum determine the health of future years. Dr. Ellis' research indicates that the brain size and number of brain cells is determined by the mother's nutrition—there can be no recovery at this stage.

In the U. S., over-nutrition is a greater problem than under-nutrition. Dr. Ellis stated that the number of adipose or fat cells is determined during the first few years of life. These cells increase or decrease in size but the number is unchanged.

—The cells of most tissues of the body, like liver and skin, are constantly being broken down and rebuilt and can regenerate themselves. However, adipose cells apparently do not recycle; once the final number of cells is formed, the tissue is set. The cells perform their function, but do not break down and rebuild. The pertinence is that persons who have been overweight since childhood are endowed with a larger than normal number of fat cells. The propensity for storage of fat is greater—reduce their weight and you have a person in perpetual starvation.

—Babies instinctively know how much food they need. Yet, many mothers continue to force feed. Fewer than 10 per cent of children of normal weight parents are fat. When one parent is fat, the chances are two in five that the child will be fat. When both parents are fat the chances are four in five that their offspring will have a lifelong weight problem. This does not indicate bigness is inherited—rather, poor eating habits are established early.

Over-nutrition, then, is a disease of affluence and ignorance. Pop, chips and candy bars are empty salary foods. The incidence of obesity in this country is an index to our general lack of health and fitness. Prevention is simpler than cure—the time to be concerned with obesity is during childhood.

Obesity was at one time regarded as a psychological problem—overeating being an abnormal personality trait. A few decades ago hypothyroidism was considered the main cause. There is no one suitable method to overcoming obesity. A factor that is frequently overlooked in weight reduction is exercise. It is essential for the health of muscle and skeletal tissue. Food intake should be in direct proportion to exercise—after the basic metabolism value is met.

The total answer to problems of under- and over-nutrition is a combination of education, utilization and publication. Welfare recipients must be counseled on basic adequate diet and the purchase of correct foods to fill diet requirements. We must acquaint our children with facts on balanced diet and with good habits. Nutritionists, mothers and others interested in improving community health must publicize the importance of balanced nutrition and be prepared to speak out.

A balanced diet is the term often used for the combination of the right amounts of the right kinds of food to provide all the nutrients in sufficient quantities. It is easy to do this by following the Daily Food Guide developed by the U. S. Department of Agriculture. Additional food may be added to increase calorie intake and to satisfy energy needs. Fats, oils and sugars are not included in this classification because they are found in combination with other foods and their nutritional contributions to the diet are mainly in calories. This Guide, then, provides a basis for meal planning rather than a complete diet. But if foods are first chosen from these four groups, the nutritional quality of diet will be safeguarded.

REACH to RECOVERY brings HOPE

If you've been there, chances are you can help!

"Reach to Recovery," according to Louise Goldman (Mrs. Bernard), of Davenport, "is predicated on the idea that another woman who has 'walked in her shoes' can give supplementary support to a patient, four or five days after mastectomy."

Mrs. Goldman is the Scott County coordinator for the program she described at the January Board meeting of the Woman's Auxiliary to the Iowa Medical Society. She is a former member of the Auxiliary Board, having served as Mental Health Chairman for several years.

"The scar is wretched to the woman who has had the operation," said Louise, "even though it's a thing of beauty to her surgeon." To look at her, you would never guess; listening to her, you know she knows what it's all about. When she brightens the hospital room of a patient in a well-fitting knit dress, her presence says more than a thousand words about *Recovery.*

Someone who has been *through it* can answer questions and bring hope to another concerned about the ability to cope with the physical and emotional problems that are certain to follow radical breast surgery.

THEY CARE—Mrs. Bernard Goldman, of Davenport, left, and Mrs. Wayne Newport, of Bettendorf, center, visit with Mrs. J. K. Lasser, of New York City, originator of the Reach to Recovery program. The two Iowans are the program's only "volunteer trainers" in the state.

"Tea and sympathy aren't enough," said Mrs. J. K. Lasser of New York City, the originator of Reach to Recovery, when she was in Davenport last October to look over the Scott County program. She called it one of the best in the country and spoke to representatives from major cities in Iowa about starting their own rehabilitative programs.

In describing her own situation, Mrs. Lasser said for seven months after her surgery she went into hiding from the world—especially from her husband. Even after two years she was still susceptible to being hurt, though she realized her husband wasn't repulsed by her and life could include her old activities. After an incident that brought tears, she went to her surgeon to plead for a rehabilitation program. When she said, "we need emotional help as much as we needed this operation," her doctor suggested SHE be the program and visit his mastectomy patients in the hospital.

That was 18 years ago. Since, she has visited hundreds of patients, trained many volunteers and traveled thousands of miles (on her own) to help others organize the program. Word of her work spread, and doctors, hospitals and nurses are among her eager supporters. Mrs. Lasser's desire to have the program included in an established foundation was realized two years ago when Reach to Recovery became an official part of the national program of the American Cancer Society.

The Davenport program was launched 14 months ago through the joint efforts of the Scott County American Cancer Society, doctors and three former mastectomy patients. Three additional volunteers have since completed training. The visitor in relating to the patient is expected to respect confidentiality, protect the doctor-patient relationship and circumvent discussion of medical matters. Louise emphasizes that the Reach to Recovery volunteer never goes to the hospital unless she has been specifically invited to do so by the doctor in charge.

Her vast experience and suggestions to manufacturers for improvements have made Mrs. Lasser an authority on what's available for the mastectomy patient in specially designed bras, nightgowns, even bathing suits. She believes that "looking normal is vital to feeling that way." Therefore, the Reach to Recovery visitor presents the new patient a kit containing specific information: where various prostheses are available, sketches of appropriate bathing suit styles, suggestions on clothing adjustments. The kit has a booklet written by Mrs. Lasser, and exercise rope and ball, and probably most important to the patient's morale—a temporary breast form in her correct size.

Louise is pleased with the excellent cooperation the program has been given in Scott County and with the increasing interest the doctors have shown in it. In fact, she is so enthused about its value that she is willing to give information and help to other communities when possible. She and Mrs. Wayne Newport of Bettendorf have been

certified by Mrs. Lasser as "Volunteer Trainers," the only two at present in Iowa. It is emphasized, however, that a hospital must have enough cases to warrant the program and the American Cancer Society Chapter in the area must initiate it.

Last year more than 67,000 women in America had surgery for breast removal; of these, 1,200 were Iowans. Thanks to Mrs. Lasser, Louise Goldman and other dedicated women like them, getting back to their normal lives will be made easier for some of them. Because someone CARES enough to HELP!!

We Have Come a Long Way

We have come a long way since the first warnings that something was wrong with our environment. Do you remember the arguments that raged with heated claims on both sides of the question when Rachel Carson's book SILENT SPRING was first out? Her fears motivated her to bring the matter to the attention of a slumbering, complacent nation. Time has proved Rachel Carson a true prophet.

Then, ecology was a word many of us had to look up in the dictionary. Today, ecology is everywhere! It has infiltrated government and politics and is a concern of the young activist generation. It may be the number one issue in the presidential campaign, if the Viet Nam war has "wound down" by then. It's in the forefront of congressional debates and proposed legislation. It has become dignified by the creation of a flag of its own. Colleges are adding ecology courses to their curriculums. It may well be the yardstick by which the 18-year olds will measure government achievements when they vote in the '72 elections. Our favorite newspapers and magazines prominently feature discourses by scientific experts on ecology. The plea is everywhere to "get with it" while time is still on our side.

Pollution is a special study area in the Farm Bureau this year. Auxiliary members should become allies of such groups on the local, county and state levels. Strength in numbers can mean Action!

Do You Know? In 1940 Americans produced two pounds of trash and garbage daily and that today from four to six pounds are produced daily?

Today American cities produce 180 million tons of solid waste each year costing 4.5 billion dollars for collection and disposal and that by 1980 this cost could rise to 7 billion.

The four basic methods of getting rid of our garbage and rubbish are: the open dump; controlled burning; dumping refuse in a pit where it is left to decompose; and the sanitary landfill? None of these even approaches a perfect method. On this problem President Nixon has said, "If we are ever to truly gain control, our goal must be broader—to reduce the volume of wastes and the difficulty of disposal and to encourage their constructive reuse instead."

Air pollution cost Americans 13½ billion dollars last year, costing each person $65.

When adverse weather conditions merge, wastes get trapped in the air causing "smog" and constituting a real menace to people with weak hearts and chronic lung diseases?

Air pollution, if unchecked, may lead to a change in the world's climate. It would bring either a great world wide flood or a new ice age. A melting of glacial age ice would be enough, some scientists think, to raise sea level everywhere by a few hundred feet, enough to put most of our smoggy East and West coast areas under water.

Have You Joined? Have you joined a housewives' boycott against high phosphate content detergents? Update your information! A recent Department of the Interior list of 48 popular detergents shows the lowest in phosphate content to be as follows:

Laundry Detergents:
Cold Water All—less than 1%
White King—less than 1%
Pre-Soaks:
All very high: Axion—63.2%; Biz—73.9%
Automatic Dishwasher Detergents:
Mr. Clean—27%—lowest listed
Most are very high in phosphate content.
Household Cleaners:
Pinesol—less than 1%
Whistle—less than 3.1%
Bleaches:
Downy and Borateem—less than 1%

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Personals

Dr. H. G. Marinos, of Mason City, has been appointed by **Governor Robert D. Ray** to the Twelfth Judicial District Nominating Commission. Dr. Marinos will serve on the Commission until June 30, 1973. The Commission makes nominations to fill vacancies on the district court bench.

Dr. John W. Eckstein, professor of internal medicine and dean of The U. of I. College of Medicine, was guest speaker at a recent meeting of the Wapello County Medical Society. Dr. Eckstein discussed "Trends in Medical Education."

Dr. Beatriz T. Carlota-Orduna has been appointed Assistant Health Director and Director of the Division of Personal Health Services for the Des Moines-Polk County Health Department. A native of the Philippines, Dr. Orduna has been in Des Moines for 18 months completing a six-month family practice residency and a one-year internship at Broadlawns Polk County Hospital.

Dr. Walter E. Gower, Fort Dodge, has relocated his offices. He has moved from the mezzanine of the Warden Plaza to the Friendship Haven Health Center. Dr. Gower had been at the Warden location since 1945.

Dr. E. A. Larsen, of Centerville, has been reappointed to a three-year term on the Appanoose County Board of Supervisors.

Dr. Reginald R. Cooper, associate professor of orthopedics at The U. of I. College of Medicine, has been awarded the 1971 Kappa Delta Award, the highest scientific honor bestowed by the American Academy of Orthopedic Surgeons, for his outstanding research in orthopedics. Dr. Cooper presented his research results at a combined meeting of the American Academy of Orthopedic Surgeons and the Orthopedic Research Society in San Francisco in March.

An exhibit prepared by **Dr. Richard L. Jenkins,** professor of child psychiatry at The U. of I. College of Medicine, for the 1970 annual meeting of the American Medical Association appeared in the February 8 issue of MODERN MEDICINE. Titled, "Behavior Disorders of Childhood," the exhibit places the disorders in six basic categories and suggests prevention and treatment for each. The exhibit was featured as a major article with original four-color art.

Dr. L. Gregorio Lauz, a pediatrician, has joined the Bluff Medical Center in Clinton. A 1964 graduate of the Santo Tomas Medical College in Manila, Philippines, Dr. Lauz served his internship at Lutheran Hospital in St. Louis, Missouri, and completed his pediatric residency at Tulane University and Charity Hospital in New Orleans, Louisiana.

Dr. G. E. Larson, of Elk Horn, recently attended a postgraduate course at the University of Nebraska College of Medicine in Omaha.

Dr. Ramon A. Yaldua and **Dr. Cristina Crespo Yaldua** a husband-wife medical team—the husband a surgeon, the wife an obstetrician and gynecologist—plan to begin the practice of medicine this summer in Forest City. Both Drs. Yaldua received the M.D. degree at the University of Santo Tomas in Manila, Philippines. Dr. Yaldua served his internship at Iowa Methodist Hospital and his wife at Iowa Lutheran in Des Moines. The husband-wife doctor team completed residencies at the Methodist Wesley Medical Center in Wichita, Kansas. After practicing medicine in their native Philippines from 1963 to 1969, Dr. and Mrs. Yaldua located briefly in Canada, then returned to Iowa where they have been serving as emergency room physicians at Iowa Lutheran Hospital.

Dr. Wallace Ash, of DeWitt, spoke on "Drug Usage" at a recent meeting of the Peirian Club in DeWitt. A discussion followed Dr. Ash's presentation.

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Dr. William R. Wessels, of Marshalltown, was the guest speaker at the capping ceremony for the graduating class of the Marshalltown Community School of Nursing. His topic was "The Meaning of Dedication." Dr. Wessels is president of the board of trustees of the Marshalltown Area Community Hospital.

Dr. J. R. Gambill, of Clarinda, gave a presentation on the goals and facilities of the Pottawattamie Mental Health Center at a meeting of its board of directors in Council Bluffs.

Dr. W. L. Jackson, a Sioux City pediatrician, spoke at a recent monthly meeting of the Floyd Valley Nurses Association.

Dr. B. A. DeLeon, of Clarinda, participated in a public seminar on drugs held in Clarinda recently. Dr. DeLeon spoke on "The Drugs Most Commonly Abused."

Dr. M. L. McCreedy, of Washington, recently had his first ride on a snowmobile as he made an emergency house call at a farm home south of Washington.

Dr. George Winokur, of St. Louis, has been named director of the State Psychopathic Hospital and head of Psychiatry at The U. of I. College of Medicine. Dr. Winokur, whose appointment becomes effective July 1, will succeed **Dr. Paul E. Huston,** who is retiring after more than 30 years with The U. of I.

Dr. and Mrs. Harold Moessner, of Amana, attended the 1971 Cancer Crusade Kickoff held in Cincinnati, Ohio. Dr. Moessner is the Iowa County Cancer Crusade Chairman and Mrs. Moessner is education chairman. Dr. Moessner presented an educational film and discussion on cancer at the January meeting of the Junior Federated Club in Marengo.

Dr. Paul From, of Des Moines, director of the Coronary Care Unit, Cardiac Pulmonary Laboratory and Inhalation Therapy at Mercy Hospital, was the main speaker at the Iowa Diabetes Association meeting held in Des Moines in February.

Dr. J. F. Veverka, of Prairie City, has been elected president-elect of the Broadlawns Polk County Hospital medical staff. Dr. Veverka is also a member of the Affiliation Committee which coordinates the Family Practice program at The U. of I. College of Medicine and Broadlawns Hospital.

Dr. Robert E. Votteler, a psychiatrist at the Mental Health Center in Marshalltown, spoke at a recent meeting of the Council for Exceptional Children. Dr. Votteler's topic was a general overview of medication used with children who have learning and behavioral disorders. A discussion followed his presentation.

Visit Your Exhibits
at the
IMS Annual Meeting
Mezzanine Floor—Hotel Fort Des Moines
Monday, April 26
8:00 a.m.—5:00 p.m.
Tuesday, April 27
8:00 a.m.—5:00 p.m.

Dr. D. G. Paulsrud, a Sioux City orthopedic surgeon, was guest speaker at the monthly medical staff meeting of the Floyd Valley Hospital in Charles City. Dr. Paulstrudt's topic was "Current Therapy for Degenerative Arthritis."

Dr. Donald M. Gammel has opened an office for the practice of medicine in Dunlap. Dr. Gammel is a 1967 graduate of the University of Nebraska School of Medicine. After serving his internship at University Hospital in Omaha, Dr. Gammel spent two years in the Army. He has been practicing in Omaha since receiving his Army discharge.

Three U. of I. faculty members—**Dr. Frederick C. Blodi,** head of ophthalmology; **Dr. William O. Rieke,** head of anatomy; and **Dr. Richard L. Lawton,** professor of surgery—described the various donor programs at The U. of I. College of Medicine for representatives of the Iowa Association of Life Underwriters at a recent meeting at The U. of I. Health Center. IALU members are assisting in the donor project by providing donor cards and information to Iowans who wish to donate their bodies, eyes, and kidneys after death to The U. of I. Health Center.

Dr. Leslie E. Weber, Sr., of Wapello, was honored recently by the Wapello County Chamber of Commerce for 45 years of service to the community as a medical practitioner. A 1925 graduate of The U. of I. College of Medicine, Dr. Weber interned in Philadelphia and began his practice in Wapello in 1926. Later he was joined by his son, **Dr. Leslie E. Weber,** also a graduate of The U. of I. College of Medicine, and together they built the present Weber Clinic in 1966.

Dr. Cesar Cardenas has returned to the Lake City Clinic after two years of service in the U. S. Army. Dr. Cardenas has been stationed in Fort Riley, Kansas, since last May after a year of duty in Vietnam.

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Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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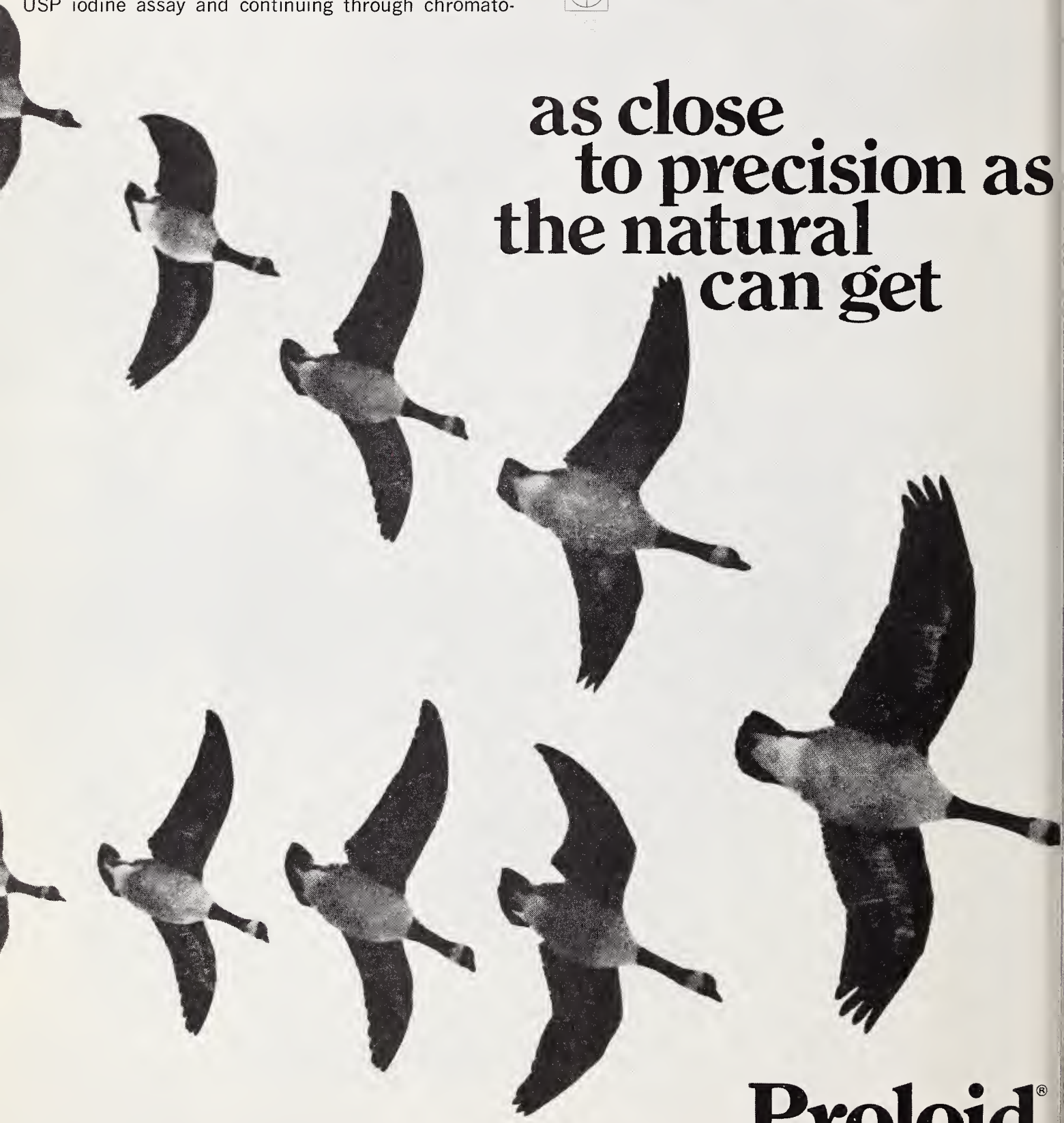

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Chromatographic analysis to standardize the sodium levothyroxine and sodium liothyronine content of Proloid (thyroglobulin) is routinely employed.

The ratio of T_4 and T_3 in Proloid (thyroglobulin) is approximately 2.5 to 1.

Proloid (thyroglobulin) is stable when stored at usual room temperature.

Indications: Proloid (thyroglobulin) is thyroid replacement therapy for conditions of inadequate endogenous thyroid production: e.g., cretinism and myxedema. Replacement therapy will be effective only in manifestations of hypothyroidism.

In simple (nontoxic) goiter, Proloid (thyroglobulin) may be tried therapeutically, in nonemergency situations, in an attempt to reduce the size of such goiters.

Contraindication: Thyroid preparations are contraindicated in the presence of uncorrected adrenal insufficiency.

Warnings: Thyroglobulin should not be used in the presence of cardiovascular disease unless thyroid-replacement therapy is clearly indicated. If the latter exists, low doses should be instituted beginning at 0.5 to 1.0 grain (32 to 64 mg) and increased by the same amount in increments at two-week intervals. This demands careful clinical judgment.

Morphologic hypogonadism and nephroses should be ruled out before the drug is administered. If hypopituitarism is present, the adrenal deficiency must be corrected prior to starting the drug.

Myxedematous patients are very sensitive to thyroid, and dosage should be started at a very low level and increased gradually.

Precaution: As with all thyroid preparations this drug will alter results of thyroid function tests.

Adverse Reactions: Overdosage or too rapid increase in dosage may result in signs and symptoms of hyperthyroidism, such as menstrual irregularities, nervousness, cardiac arrhythmias, and angina pectoris.

Dosage and Administration: Optimal dosage is usually determined by the patient's clinical response. Confirmatory tests include BMR, T_3 ^{131}I resin sponge uptake, T_3 ^{131}I red cell uptake, Thyro Binding Index (TBI), and Achilles Tendon Reflex Test. Clinical experience has shown that a normal PBI (3.5-8 mcg/100 ml) will be obtained in patients made clinically euthyroid when the content of T_4 and T_3 is adequate. Dosage should be started in small amounts and increased gradually with increments at intervals of one to two weeks. Usual maintenance dose is 0.5 to 3.0 grains (32 to 190 mg) daily.

Instructions for Use: The following conversion table lists the approximate equivalents of other thyroid preparations to Proloid (thyroglobulin) when changing medication from desiccated thyroid, T_4 (sodium levothyroxine), T_3 (sodium liothyronine), or T_4/T_3 (liotrix).

Dose of Proloid (thyroglobulin)	Dose of desiccated thyroid	Dose of T_4 (sodium levothyroxine)	Dose of T_3 (sodium liothyronine)	Dose of liotrix (T_4/T_3)
1 grain	1 grain	0.1 mg	25 mcg	#1 (60 mcg/15 mcg)
2 grains	2 grains	0.2 mg	50 mcg	#2 (120 mcg/30 mcg)
3 grains	3 grains	0.3 mg	75 mcg	#3 (180 mcg/45 mcg)
4 grains	4 grains	0.4 mg	100 mcg	
5 grains	5 grains	0.5 mg	125 mcg	

In changing from Thyroid USP to Proloid (thyroglobulin), substitute the equivalent dose of Proloid (thyroglobulin). Each patient may still require fine adjustment of dosage because the equivalents are only estimates.

Overdosage Symptoms: Headache, instability, nervousness, sweating, tachycardia, with unusual bowel motility. Angina pectoris or congestive heart failure may be induced or aggravated. Shock may develop. Massive overdosage may result in symptoms resembling thyroid storm. Chronic excessive dosage will produce the signs and symptoms of hyperthyroidism.

(Treatment: In shock, supportive measures should be utilized. Treatment of unrecognized adrenal insufficiency should be considered.)

How Supplied: ¼ grain; ½ grain; scored 1 grain; 1½ grain; 3 grain; and scored 5 grain tablets, in bottles of 100 & 1000; and scored 2 grain tablets in bottles of 100.

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Dr. G. E. McFarland, an Iowa City otolaryngologist, was guest speaker at a recent meeting of the Washington County Registered Nurses Association. Dr. McFarland, who served with the Army in Vietnam, talked and showed slides on reconstructive surgery on Vietnam civilians.

Drs. A. G. Felter, P. L. Weigel, and **Alan Ball,** of Van Meter Medical Associates, recently held an open house at their new quarters in the Van Meter Medical Center. The new building houses the offices of the three doctors as well as convenient examining rooms, an EKG room, X-ray room, minor surgery room and children's room, waiting room, pharmacy and office space. The occasion marked Dr. Felter's 50th year in the practice of medicine at Van Meter.

Dr. and Mrs. Earl H. DeShaw have been named to the Monticello Hall of Fame. The Hall of Fame was established in 1970 to recognize persons who make outstanding contributions to the community. During his 40 years of practice in Monticello, Dr. DeShaw has served the community in countless ways . . . guiding force behind Monticello Development Corporation, mayor from 1962-1968, helped establish Senior Home opened in 1968, past Lions Club president, organization of Monticello Camp Fire Girls, assisting young girls through nurses training, and many more. Dr. DeShaw is a past president of the Jones County Medical Society and currently a delegate to the IMS House of Delegates. A native of Monticello, Mrs. DeShaw is widely known for her work with the youth of the community.

Dr. S. B. Hussain has been named medical director of the Woodward State Hospital-School. Dr. Hussain, a board certified pediatrician, will serve under the direction of **Dr. E. C. Ping,** assistant superintendent of medicine. A graduate of the Gandhi Medical College (Osmania University), in Hyderabad, India, Dr. Hussain served his internship at Grace General Hospital in Winnipeg, Manitoba, Canada. He completed his pediatric residency at the University of Nebraska School of Medicine in Omaha, where he was the chief resident in pediatrics. This was followed by a one-year fellowship in mental retardation at the Nebraska Psychiatric Institute. Prior to coming to the Woodward State Hospital-School, Dr. Hussain served as medical director of the St. Amant Ward for Retarded Children in Winnipeg.

At the annual meeting of the medical staff of Grinnell General Hospital, **Dr. B. G. Wiltfang** was elected chief of staff; **Dr. Warren H. Bower,** vice-president; and **Dr. W. I. Evans,** secretary. All three physicians practice in Grinnell.

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IN THIS ISSUE

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- Diagnosis of Cerebral Death—Robert J. Luchi, M.D.
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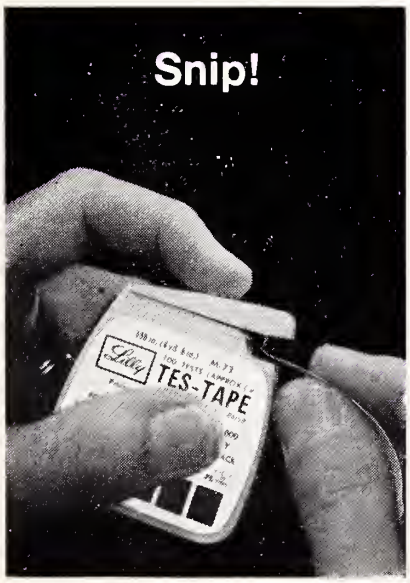

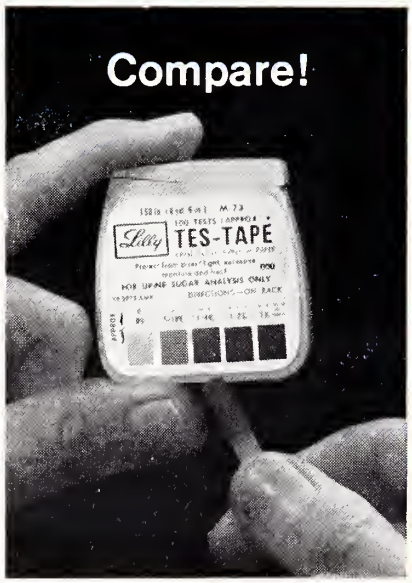

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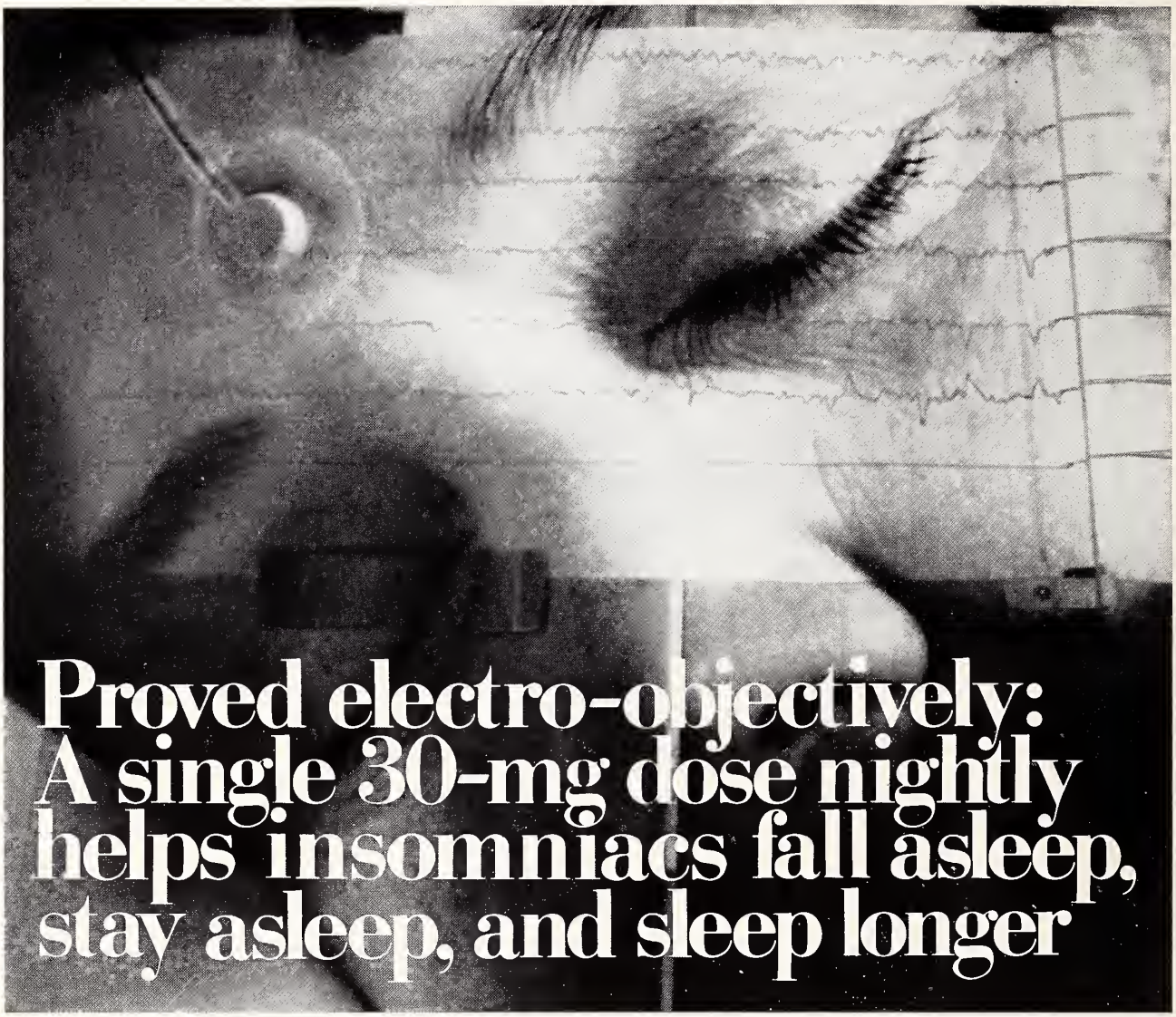

Controlled studies of 23 insomniac and 13 normal subjects treated with Dalmane (flurazepam HCl) in five sleep laboratories generated over 4000 hours of electroencephalographic, electro-oculographic and electromyographic tracings. These studies revealed that Dalmane 30 mg nightly usually induces sleep in 22 minutes and provides seven to eight hours of sleep.[1,2,3]

Moreover, Dalmane 30 mg was found to be useful in all common types of insomnia in which it was studied. Of drugs studied in a sleep laboratory,[1] Dalmane 30 mg was the only one that consistently reduced sleep induction time and maintained sleep nightly for 14 consecutive nights of use.

Confirmed clinically

Fifty-three controlled studies using a paired-night, double-blind crossover design have evaluated Dalmane clinically. In the majority of these, Dalmane (flurazepam HCl) significantly reduced sleep induction time and increased sleep duration. Dalmane and a placebo were alternated on successive nights in 2010 insomniacs, 1706 of whom were studied for a single night-pair, and the remainder for as many as fifteen paired-nights. A patient preference for Dalmane was apparent in the paired-night studies.

Dalmane was also preferred to certain hypnotics in two separate preference studies. In each of two double-blind studies, Dalmane 30 mg retained effectiveness for the total period of seven consecutive treatment nights, according to subjective/objective evaluations.

In summary, Dalmane is useful in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening. It can be used effectively in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep.

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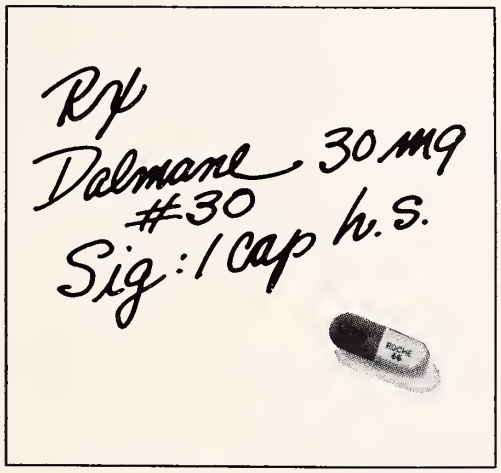
References: 1. Kales, A., *et al.*: "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.*: "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed.): *Sleep: Physiology and Pathology*, Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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Before prescribing, please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

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Brief Summary

Indications

Erythrocin is indicated against gram-positive cocci — staphylococci (most strains), pneumococci and streptococci (including enterococci). Active against other pathogens, such as *Corynebacterium, Hemophilus, Clostridium, Neisseria,* and *Treponema pallidum,* the agents causing trachoma and lymphogranuloma venereum and primary atypical pneumonia caused by *Mycoplasma pneumoniae* (Eaton agent). Establish susceptibility of pathogenic organism when practical. Maintain therapeutic levels for ten days in the treatment of streptococcal infections to help prevent rheumatic fever and glomerulonephritis. Also consider local measures or surgery whenever indicated.

Contraindications

Known hypersensitivity to erythromycin. I.M. preparation also contraindicated in patients hypersensitive to the "caine" type of local anesthetics.

Precautions, Side Effects

Occasionally abdominal discomfort, cramping, nausea or vomiting may occur; generally controlled by reduction of dosage. Mild allergic reactions, such as urticaria and other skin rashes, may occur. Serious allergic reactions have been extremely infrequent; if hypersensitivity is encountered consider appropriate countermeasures, e.g., epinephrine, steroids, etc., and withdraw drug. The rare possibility of overgrowth of nonsusceptible organisms should be kept in mind; if it occurs withdraw drug and institute appropriate treatment. Local venous discomfort, generally mild, may occur with I. V. administration. I.M. preparation is suitable for deep intramuscular administration only; restrict use in children with small muscle mass. A mild transient local discomfort sometimes occurs following rectal insertion of Erythrocin Suppositories; discontinue if significant discomfort persists.

Administration and Dosage

I. ORAL: In adults with mild to moderate infections caused by readily-susceptible organisms 1.0 Gm. daily; more severe infections or those caused by less susceptible organisms 2.0 Grams daily; unusually severe infections up to 4 or more Gm./day. Daily dose in children is 15 to 25 mg./lb./day depending upon severity of infection. Daily dose should be administered in divided doses at 4-to-6 hour intervals. Continue treatment for at least 48 hours after symptoms have subsided and temperature has returned to normal. In fulminating or life-threatening infections, a parenteral form of erythromycin is preferred.

II. PARENTERAL: Intravenous administration may be continuous or intermittent (6 to 8 hour intervals); 1 to 4 Gm. daily in adults; 15 to 25 mg./lb./day in children, depending upon severity of infection. Recommended I.M. dose is 100 mg. (2 ml.) for adults, 50 mg. (1 ml.) for children 30 lbs. or more and 1.4 to 1.8 mg./lb. in smaller children. Injections are usually given at 6 to 8 hour intervals; may be given at 4 to 6 hour intervals for severe infections.

III. RECTAL: Following therapeutic doses are recommended in children: to 20 lbs., 1-125 mg. suppository every 8 hours; 20 to 40 lbs., 1-125 mg. suppository every 6 hours.

Change to oral therapy as soon as practicable.

101281

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President's Page

Physicians throughout the health care community are under close scrutiny by consumer, governmental and political groups. We have no recourse but to accept the challenge represented here and become responsible innovators. We must use our intelligence, resiliency and courage to meet crises as they arise.

As medicine moves into the future, we must do our utmost to assure access to high quality medical care, and we must simultaneously support those methods of financing health care which enhance and do not jeopardize the element of quality. All important here is the provision of manpower for medicine and the allied health fields.

Medicine must have a clear set of priorities and must determine what it can do best within its resources, policies and traditions. Our pattern must be drawn from the best of the past, the realities of the present and the best hopes of the future.

L. J. O'Brien M.D.

President

Gone with the wind

IOWA MEDICAL MISCELLANY

Fort Dodge surgeon L. J. O'Brien, M.D., was installed as president of the Iowa Medical Society April 28. Dr. O'Brien succeeds J. H. Sunderbruch, M.D., Davenport. Named president-elect by the 1971 House of Delegates was K. E. Lister, M.D., Ottumwa, who moves to this post after serving as chairman of the Board of Trustees. Other new IMS officers include R. H. Flocks, M.D., Iowa City, vice-president; J. F. Bishop, M.D., Davenport, trustee; J. F. Collins, M.D., Davenport, councilor, and K. A. Garber, M.D., Corydon, councilor.

• • •

Leo B. Sedlacek, M.D., long-time Cedar Rapids physician, received the coveted IMS Merit Award for 1971 at the Society's Annual Banquet April 27. Dr. Sedlacek is widely recognized for his work in the field of alcoholism. Other 1971 IMS award recipients: Washington Freeman Peck Award (for outstanding supportive service to medicine)—Mrs. Marion C. Samo, Acting Librarian, Iowa State Medical Library; John F. Sanford Award (for laymen making significant contributions to health)—Mr. Howard Hall, Cedar Rapids; Ben T. Whitaker Award (for a physician making an outstanding contribution to medical education)—Dennis H. Kelly, Sr., M.D., Des Moines. Dr. Kelly recently concluded 10 years' service as JOURNAL *Scientific Editor.*

• • •

By a 44-0 vote the IMS-backed physicians' assistants bill (SF 78) passed the Iowa Senate April 13. Governor Ray is expected to sign the measure into law. The act authorizes an experimental program to permit trained assistants to work under a doctor's supervision. Principal responsibility for implementation of the program resides with the State Board of Medical Examiners. The law provides for recognition of past education obtained by physician assistant candidates and calls for Board approval of instructional programs which prepare persons for this new paramedical designation. A progress report to the General Assembly is required of the Medical Examiners by January, 1973.

Legislative Chairman John Kelley, M.D., testified April 13 before the Senate Commerce Committee on the Comprehensive Health Care bill (SF 239). Dr. Kelley set forth Society reasons (threatens time-honored free-choice and fee-for-service principles) for opposing the legislation which paves the way for the corporate practice of medicine.

• • •

United States Senator Edward Kennedy will be in Des Moines May 13 to preside over a hearing of the Subcommittee on Health of the Senate Public Welfare Committee. As chairman of the Subcommittee, Senator Kennedy is holding hearings in 10 cities and states. IMS representatives will attend the Des Moines hearing.

• • •

Des Moines will be the site of a May 7-9 Regional Conference on Foundations for Medical Care. Administration of a Foundation, peer review, contract negotiations, etc., will be discussed. The Des Moines conference is one of four being sponsored by the American Association of Foundations for Medical Care and the Department of Health, Education and Welfare. The IMS is serving in a host capacity.

• • •

Formal action opposing SF 239 (Corporate Practice Bill) and SF 419 (Health Care Facilities Bill) was taken April 8 by the Executive Council. The latter requires prior approval by the governmental Hospital and Health Facilities Advisory Council for any expansion or new construction of a health care structure.

• • •

U. of I. medical students Roger Ceilley and Leo Milleman observed and participated in the April meeting of the IMS Executive Council. Ongoing student exposure to Society deliberations, such as this, was urged by Ceilley and Milleman; the Council concurred informally in the value of stepped-up student involvement in the Society and reminded itself of those efforts now being expended to form a student medical society.

• • •

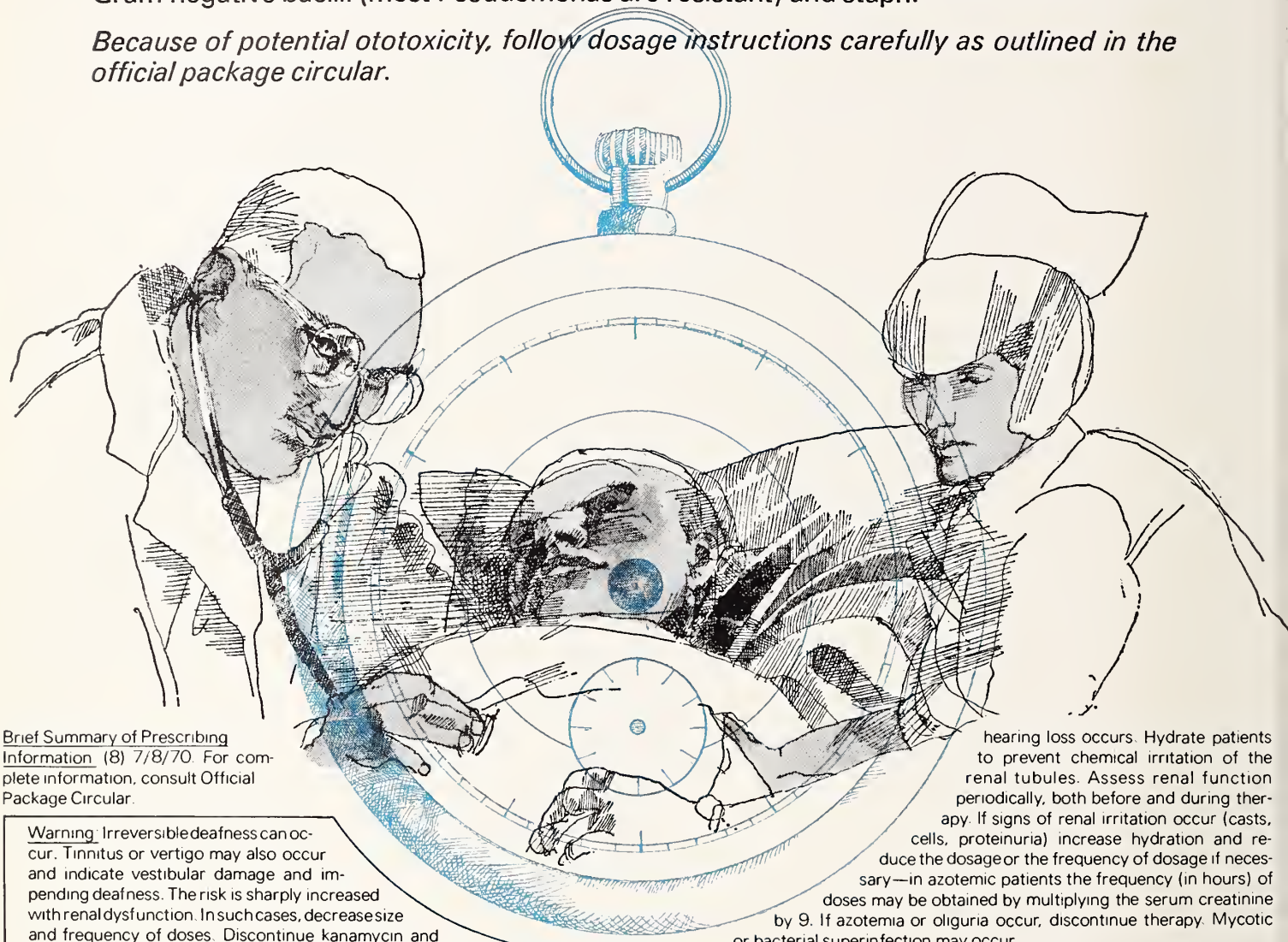
Nearly 50 per cent of 2,222 professional liability surveys sent to Iowa physicians have been returned. Preliminary tabulations show more than 900 respondents had no malpractice claims in the six-year period from 1965 to 1970. Claims reported in the survey increased annually from 1966 (10) to 1970 (54). Number of claims reported for the six-year period was 146. More detailed study will be made of the survey data. Additional survey responses are still desired.

A valuable hospital antibiotic —when there is no time

in severe systemic infections—postoperative bacteremia, Gram-negative/staph pneumonias or neonatal sepsis—Kantrex® (kanamycin sulfate) is often indicated before results of customary sensitivity tests can be reported. Clinical response is often seen within 24-48 hours in susceptible infections, with remission soon after.

10 years of experience confirm the continuing effectiveness of Kantrex® against many Gram-negative bacilli (most Pseudomonas are resistant) and staph.

Because of potential ototoxicity, follow dosage instructions carefully as outlined in the official package circular.



Brief Summary of Prescribing Information (8) 7/8/70. For complete information, consult Official Package Circular.

Warning: Irreversible deafness can occur. Tinnitus or vertigo may also occur and indicate vestibular damage and impending deafness. The risk is sharply increased with renal dysfunction. In such cases, decrease size and frequency of doses. Discontinue kanamycin and check hearing if azotemia increases. Watch carefully for ototoxicity in older patients and patients receiving more than 15 Gm. of kanamycin. To avoid neuromuscular paralysis with respiratory depression, postpone intraperitoneal instillation in post-operative patients until recovery from anesthesia and muscle relaxants is complete. Avoid concurrent use of other ototoxic drugs including ethacrynic acid. Safety in pregnancy is not established.

Indications: Serious infections due to susceptible strains of *E. coli*, Proteus sp., *Enterobacter aerogenes*, *K. pneumoniae*, *Serratia marcescens* and *Mima-Herellea*. Culture and sensitivity studies should be performed.

Contraindications: A history of hypersensitivity to the drug. Prior auditory damage by kanamycin or other agents may be a contraindication if effective alternative therapy is available.

Precautions: Obtain audiograms before and during therapy in patients with renal dysfunction when treatment lasts more than 5 days. Stop Kantrex if tinnitus or hearing loss occurs. Hydrate patients to prevent chemical irritation of the renal tubules. Assess renal function periodically, both before and during therapy. If signs of renal irritation occur (casts, cells, proteinuria) increase hydration and reduce the dosage or the frequency of dosage if necessary—in azotemic patients the frequency (in hours) of doses may be obtained by multiplying the serum creatinine by 9. If azotemia or oliguria occur, discontinue therapy. Mycotic or bacterial superinfection may occur.

Adverse Reactions: Irritation or pain at the injection site, skin rash, drug fever, headache and paresthesias.

Dosage and Administration: The maximum total daily dose should not exceed 1.5 Gm. by all routes of administration. The usual dose is 7.5 mg./Kg./12 hours I.M. The average adult dose is 1 Gm. daily. Uncomplicated infections due to sensitive organisms should respond in 24 to 48 hours. If no response occurs in 3 to 5 days, stop therapy and recheck the bacterial sensitivities. Hydrate patients well to minimize renal irritation. Inject deeply into the upper outer quadrant of the gluteal muscle. Discard partially used vials after 48 hours. The drug should not be physically mixed with other antimicrobials.

Supplied: Rubber capped vials as a ready-to-use sterile aqueous solution in two concentrations: 0.5 Gm. in 2 ml. and 1.0 Gm. in 3 ml. Also available—Pediatric Injection 75 mg. in 2 ml. A.H.F.S. Category 8:12.28

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The incorporation of 1970 physician charges into the data utilized in the Blue Shield UCR program occurred last month, according to a report provided the IMS Executive Council. Updating of this nature is expected to occur regularly at six-month intervals. Blue Shield has advised also that Medicare pending claims are at their lowest count since the program's inception.

• • •

The Society's Architectural Education Committee is anxious to obtain information from member physicians regarding health facility building programs underway or contemplated. Please contact J. E. Kelsey, M.D., Chairman, Committee on Architectural Education, Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

• • •

Fifty-three participants in the Iowa Medical Tuition Loan Plan have been graduated either from The U. of I. College of Medicine or the Des Moines College of Osteopathic Medicine and Surgery. Of the graduates 40 are still interning or are in military service. Four have entered general practice in Iowa and seven have left the state and are repaying their loans; two others are in specialty training. Established by the General Assembly in 1967, the tuition program has as its objective adding family practitioners to Iowa's physician ranks. There are now 46 medical and 62 osteopathic students receiving loans.

• • •

A new IMS audio-visual presentation is available for viewing by interested county medical societies. The 20-minute slide presentation describes the way in which the individual member's dues are expended. Arrangements for scheduling the presentation may be made through a field man or by contacting IMS Headquarters.

• • •

Miscellaneous Miscellany: Lutheran Hospital in Des Moines has announced plans to establish a renal dialysis unit. . . . Recent memo to Iowa physicians from Dean John W. Eckstein, M.D., reported 1969-70 direct costs of The U. of I. College of Medicine to be $19.6 million with 27.6 per cent coming from the University General Fund, 26 per cent from clinical faculty earnings, and 46.4 per cent from federal and non-federal teaching and research grants. . . . Donald J. Soll, M.D., Denison, has been named to the Advisory Council of the State Office of Comprehensive Health Planning. . . . Plastic "Birth Registration Cards" are available to anyone born in Iowa for $2 from the Department of Health. . . . Clarke, Henry, Jefferson, Chickasaw and Mills counties have started public health nursing programs this year; this brings to 79 the number of Iowa counties providing this service.

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Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

In the article "Recertification" on page 288, a mature and respected Iowa educator tells some of his thinking about the recertification of practicing physicians. Dr. Carroll Larson is Head of the Department of Orthopaedic Surgery at The University of Iowa, and has many years' experience serving on the Board of Orthopaedic Surgery. In his work with that Board, Dr. Larson has helped pioneer some of the exciting developments occurring in medical education today.

Many JOURNAL readers, even though not orthopaedic surgeons, should find of interest Dr. Larson's description of the thinking and activities of the Board of Orthopaedic Surgery, as it has grappled with the very difficult topic of certification, and then recertification. Dr. Larson is among those who feel that *physicians* should be responsible for self-policing, and should be looking to the quality-control of patient care, since quality of care and continuing education are inseparable considerations. As he sees it, physicians as individuals, as groups and as societies must work actively in continuing education and quality control for patient care if they wish to enjoy the freedom of self-policing in the future.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-4792.

May 23	National Conference on Professional Education in Nuclear Medicine
May 25-26	Laboratory Management (State Hygienic Laboratory)
May 26	Refresher Course on Cerebrovascular Disease
May 26-27	Swimming Pool Management (State Hygienic Laboratory)
June 8-10	Basic Mycology (State Hygienic Laboratory)
June 10	Workshop in Basic Blood Banking (Sioux City)
June 14-16	Conference on Hypertension, Cardiology and Nephrology
June 23	Refresher Course on Cerebrovascular Disease
June 28-July 2	Summer Workshop on Alcoholism
July 26-30	Pupil Transportation Workshop

U. of I. College of Medicine

A series of conferences entitled, "The Community Fights Back," will be presented by the U. of I. College of Medicine during the coming four months. Future sessions are noted below:

Marriage Failure—Social Crisis	*Sites*	*Toward Improved Sex Education*
May 8	University of Iowa Memorial Union, Iowa City	June 5
May 15	Hotel Blackhawk, Davenport	June 12
May 19	Holiday Inn South, Des Moines	June 16
May 20	St. Anthony's Regional Hospital, Carroll	June 17

Medical Meetings

CONTINENTAL U. S.

May 3-4 — **Postgraduate Course on Coronary Artery Disease—Medical and Surgical Management sponsored by University of Kansas Medical Center**, Battenfeld Auditorium, Kansas City, Kansas.

May 3-4 — **Seminar on Energy Metabolism and Regulation of Metabolic Processes in Mitochondria sponsored by University of Nebraska Medical Center**, Omaha.

May 3-6 — **19th Annual Clinical Meeting of American College of Obstetricians and Gynecologists**, San Francisco.

May 4-8 — **Student American Medical Association**, Chase-Park Plaza Hotel, St. Louis.

May 5-8 — **15th Annual Postgraduate Course on Fractures and Other Trauma sponsored by Chicago Committee on Trauma and American College of Surgeons**, John B. Murphy Auditorium, Chicago.

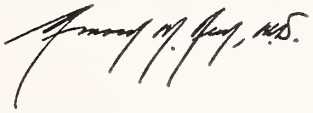
May 6-7 — **Postgraduate Course on Inhalation Therapy sponsored by University of Kansas Medical Center**, Battenfeld Auditorium, Kansas City.

May 6-8 — **Mid-Central States Orthopedic Society**, Broadmoor Hotel, Colorado Springs.

May 7-9 — **Medical Legal Conference sponsored by American College of Legal Medicine**, Royal Orleans Hotel, New Orleans.

(Continued on page 300)

STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Rubeola Immunization

In cooperation with county medical societies, rubeola (red measles) immunization clinics were started in 1966. Between March, 1966, and January, 1970, county-wide clinics were held in schools in 81 counties. The program was completed in three counties in 1966, 39 counties in 1967, 18 counties in 1968, 19 counties in 1969 and one county in 1970. One county was done in three increments, one-third each in 1968, 1969 and 1970. In another county the clinic was conducted periodically during the entire four years. Prior to beginning the program, a formula was used to estimate the number of children susceptible to red measles in each county. The total susceptible population for the state was estimated to be 146,124. The school clinics were operated with the assistance of local volunteers and vaccine was administered to both preschool and school age children—ages 1 to 15 years. During the period an additional unknown number of children were immunized in private physicians' offices.

RESULTS AND EVALUATION

The results are shown in three groups in Table 1. Polk County is listed separated as the numbers are large enough to be statistically meaningful (Group A). In Polk County 7,038 or 46.9 per cent of the susceptibles were immunized. The other 80 program counties are listed together as Group B because the numbers and rates for an individual county could easily be influenced by variable factors. In these 80 counties (Group B) 88,125 or 83.8 per cent of the susceptibles were given vaccine. The 18 non-program counties which included 26,667 susceptibles are shown in Group C.

The number of measles cases reported in 1970 is used as an indicator of the effectiveness of the total program. During 1970 a total of 1,107 rubeola cases were reported. The group breakdown was: 134 in Group A, 413 in Group B, and 560 in Group C. Thus the attack rates per 100,000 susceptibles are 893, 392 and 2,099, respectively, as shown in the Table and Graph. The rates are more than five times higher in the non-immunized Group C than in Group B in which 83 per cent of susceptibles were immunized. Group A, with an immunization level of 46 per cent, had an attack rate more than two times higher than Group B. If the rates for Group C had prevailed in Group B there would have been more than 2,200 cases instead of the 413 cases actually reported.

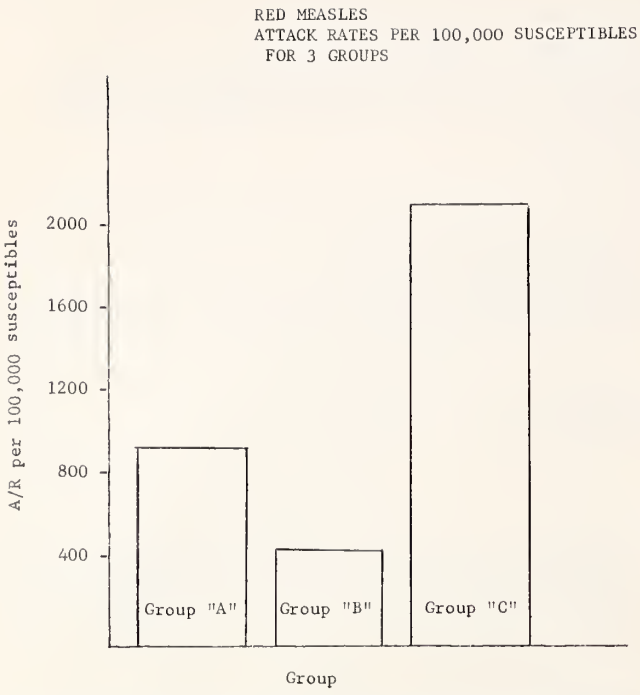
In assessing the effect of this program, there are many additional factors bearing on the results which have not been considered. Some of these variables would make the program appear less successful; others would make it appear more successful. These factors include: changes in the population in each county during the four-year period; immunization of residents of one county

TABLE I

RESULTS OF RUBEOLA IMMUNIZATION

Number of susceptibles, number and per cent of susceptibles immunized, and reported cases of measles with attack rates.

Group	Area	No. of Susceptibles	Immunized No.	Immunized %	Measles No. of Cases	Measles Rate/ 100,000
A	Polk County	15,000	7,038	46.9	134	893
B	80 Program Counties	105,124	88,125	83.8	413	392
C	18 Counties—no program	26,667	unknown	unknown	560	2099
	Totals	146,124			1107	



in an adjoining county; completeness of disease reporting; and accuracy of diagnosis (58 per cent of the reported cases were parents' diagnoses). It is believed however that minor variations caused by these factors would not alter appreciably the clear-cut findings which attest to the high degree of effectiveness of the immunization program in reducing the incidence of rubeola.

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Morbidity Report for Month of March 1971

Diseases	March 1971	1971 to Date	1970 to Date	Most March Cases Reported From These Counties
Brucellosis	1	3	5	Black Hawk
Chancroid	1	1	0	Des Moines
Chickenpox	1152	2645	2617	Black Hawk, Des Moines, Humboldt, Polk, Pottawattamie, Story
Conjunctivitis	40	85	78	Marshall
Gas Gangrene	1	1	0	Davis
Gastrointestinal viral infection	1117	3464	155	Carroll, Jackson, Keokuk, Warren
German measles	108	228	971	Jasper, Polk
Gonorrhea	432	1167	1130	Scattered
Hepatitis				
Infectious	31	90	84	Polk, Scott
Serum	2	7	0	Johnson, Scott
Histoplasmosis	6	7	3	Polk
Impetigo	50	142	180	Polk
Infectious mononucleosis	153	343	214	Cass, Clayton, Johnson
Influenza A	6**	6**	15	Johnson
Listeriosis	1	1	0	Linn
Malaria, imported				
P. vivax	2*	8	5	Benton, Polk
Measles	323	517	48	Jackson, Tama, Wapello
Meningitis				
H. influenza	1	1	2	Osceola
Meningococcal	4	7	3	Lee, Lucas, Polk, Scott
type unspecified	2	5	4	Polk, Scott
Mumps	617	1375	1296	Crawford, Des Moines, Polk
Nocardiosis	1	1	0	Adams
Pneumonia	81	266	264	Scott
Rabies in animals	13	68	21	Scattered
Rheumatic fever	7	20	13	Dubuque
Salmonellosis				
S. derby	2	3	0	Polk
S. enteritidis	1	2	0	Dubuque
S. newport	1	6	1	Pottawattamie
S. oranienburg	1	2	1	Polk
S. typhimurium	4	6	6	Pottawattamie
Group C	1	1	1	Pottawattamie
Shigellosis				
S. sonnei	11	15	26	Polk
Streptococcal infections	992	1529	1856	Johnson
Syphilis	49	138	142	Linn, Polk
Tuberculosis, active	19	41	32	Plymouth, Polk, Woodbury
Whooping cough	5	6	5	Dubuque, Scott

* Delayed
** Laboratory confirmed

AMA Atlantic City, 1971

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The Scientific Program includes two all day in-depth sessions on "Coronary Care Units and Cardiac Arrythmias" and "Trauma." A program on "Organ Transplantation--Present State of the Art" is also scheduled.

Relevant problems facing today's physician will be discussed in two sessions "Abortion--A Legal Fact" and "The Role of the Physician in Drug Abuse." The 23 Scientific Sections of the AMA will contribute programs of high interest in their specialties.

Join your colleagues for a stimulating five days in Atlantic City. And remember Atlantic City can be fun for the entire family. Swimming, golf, shops, antiques, and fine restaurants provide hours of entertainment for you and your family. Most new and modernized hotels are located near the five mile long Boardwalk. Plan now to attend the 120th Annual AMA Convention.

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Scientific Articles

Ammonia Injuries in Agriculture

SCOTT HELMERS, M.D.,
F. H. TOP, SR., M.D., and
L. W. KNAPP, JR., M.S.
Iowa City

IOWA PHYSICIANS can expect to see an increasing number of ammonia-accident victims as a consequence of the rapidly growing agricultural use of anhydrous ammonia as a fertilizer. Thus, it seems appropriate and timely that the special problems of ammonia-produced chemical trauma be examined.

PHYSICAL PROPERTIES

Ammonia is a colorless gas at atmospheric temperature and pressure with a characteristic pungent, irritating odor. Under moderate pressure the gas is readily liquefiable. Since 113 cubic feet of vapor condense to one cubic foot of liquid, it is usually handled as a pressurized liquid for ease of transportation and storage. Because of high pressure and a temperature of –28° F, a stream of vaporizing anhydrous ammonia will penetrate and freeze any tissue that it strikes. Ammonia is about half as heavy as air; thus, it readily rises. The flammability limits are 16 to 25 per cent by volume of ammonia in air, and its ignition temperature is 1200° F. These conditions are rarely reached (one notable instance was a worker who attempted to repair an ammonia tank by welding it with a resultant explosion). An explosion involving ammonia does not necessarily mean fire, but usually refers to rapid release of the pressure holding the compound in the liquid state. Perhaps the most significant property of ammonia is its extreme solubility in water. One volume of water can dissolve 1300 volumes of the gas, thus flushing with water is a prime means of diluting and removing ammonia from any kind of exposure injury. However, because of this property, it also rapidly dissolves in the water of living tissue and severe (alkaline) caustic burns can be expected.

Ammonia has many uses in and out of agriculture. Its 82 per cent nitrogen content makes it ideal as a fertilizer and it is generally applied in the form of pressurized anhydrous ammonia liquid, ammonia in water solutions, or dry fertilizer salts. However, it is also used as a base chemical for tooth powder, pesticides, pharmaceuticals and livestock feed. As a cleaning agent, it is found in nearly every household. Faigel[1] reports that even common household ammonia has dangers, and, if mixed with a sodium hypochlorite bleach significant vapor of a toxic nature will be evolved. One relatively new and dangerous "use" is the practice by thieves of squirting ammonia in their victims' faces to incapacitate them.[2]

Scott Helmers is a 1970 graduate of The U. of I. College of Medicine. F. H. Top, Sr., M.D., is professor and head of The U. of I. Department of Preventive Medicine and Environmental Health, and Director, Institute of Agricultural Medicine, College of Medicine. L. W. Knapp, Jr., M.S., is professor and chief, Accident Prevention Section, Institute of Agricultural Medicine, and Director, Accident Prevention Laboratory, Oakdale.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF MAY, 1971.

Man's first use of ammonia fertilizer occurred millenia ago in Libya when nomadic farmers spread burned camel dung on their fields in view of the Temple of Ammon. But not until the last quarter century, in the United States, did ammonia fertilization become a widespread farming practice when research in the late forties proved its worth and practicality. Huge ammonia plants, idle since the war effort, were made available to private firms, and the agricultural ammonia industry soon developed into one of the three largest new enterprises since World War II. Ammonia today has become a vital part of American farming and in nearly every rural community one can find rows of huge, white cylinders for transport and storage of anhydrous ammonia. In semi-trailers over the highways, in rail cars, in huge barges on the rivers, and in pipelines under the ground, hundreds of thousands of gallons of pressurized liquid ammonia flow daily in a path from the producer's plant to the farmer's field.

In Iowa, anhydrous ammonia application began slowly in the early fifties. Iowa farmers used only 18,000 tons in 1955, but as anhydrous ammonia proved effective in raising yields, annual consumption figures rose steadily and 348,000 tons were used in 1967. Nearly twice this amount will probably be applied in Iowa in 1970, and the figure is expected to double again, exceeding one million tons by 1980.

Unfortunately, as with many technological advancements of our society, ammonia fertilizer possesses the potential for serious injury to man, and even self-destruction. A mishap involving ammonia will usually cause the victim great pain and loss of time and may well rob him of his eyesight if the contact with the material is on his face. The hazards of ammonia have been well investigated because of its long use as a refrigerant; however, it is relatively new to the farmer and to his treating physician.

AMMONIA EQUIPMENT

Fertilization with ammonia requires special equipment. From the production plant the ammonia may be transported to a bulk storage terminal by a 9,000 gallon transport truck, a 35,000 gallon rail car, or a 400,000 gallon barge. Recently a pipeline was approved which will pass diagonally across Iowa. The 2,000 mile 10-inch diameter line originating in Louisiana, will surface at Muscatine, Washington, Marshalltown, Ackley, Garner, Spencer and Sioux City. When the ammonia reaches the bulk terminal, it will probably be stored in either 100,000 gallon spherical tanks, called "Hortonspheres" or in the more customary 30,000 gallon cylindrical tank. The filling of the 1,000 gallon "nurse tanks" which transport it to the field will be accomplished with pumps or compressors and closed piping systems. The nurse tanks are trailer-mounted cylinders that are pulled to the farmer's field for use either as a direct supply for application or for filling smaller applicator tanks. Smaller tanks hold 250 gallons and are usually mounted on a two-wheeled pull rig or towed implement. As the farmer's tractor draws the applicator through the field, liquid ammonia is fed from the supply tank to a flow regulator and from there out into the ground through hoses mounted behind knives which penetrate several inches into the soil. When ammonia is released into soil it changes to a gas and is readily absorbed by soil moisture and retained until utilized by growing plants. When used as a direct supply, the nurse tank is pulled along behind the tool bar to which the several knives covering numerous rows are fastened, and its liquid-out hose connects to the flow regulator mounted on the tool bar. Anhydrous ammonia is always under sufficient selfgenerated pressure in its containers so that field transfer and application may be carried out simply by decompression. However, aqua ammonia fertilizer has such a low vapor pressure that pumps are necessary for transfer and application. The equipment for these two fertilizers appears very similar and in all cases, steel is the only metal which may be used in handling either material. Also, all anhydrous ammonia containers and fittings must be able to withstand 250 pounds pressure per square inch (psi). Standards for storage and handling are recommended by the Agricultural Nitrogen Institute,[3] an industry organization, and these specifications often form the guidelines for state and federal laws.

Although ammonia containers are covered by manufacturing standards, there can be no absolute guarantee that the chemical will never escape from container or fittings during move-

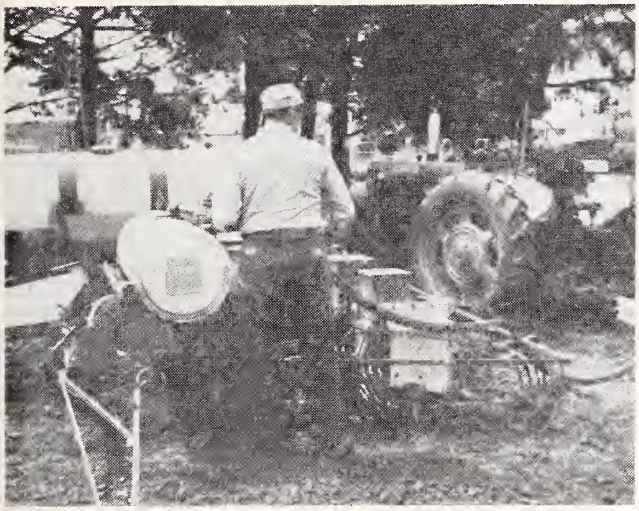

Figure 1. Filling the aqua-ammonia tank on the corn planter from the "nurse tank."

Figure 2. Typical anhydrous ammonia application equipment being used on growing corn.

ment from production plant to the field. A most common accident situation involves transfer of pressurized liquid from tank to tank. Workers must, in general, transfer the ammonia fertilizer from container to container at least three times between the factory and farm, and each procedure involves hoses, valves and fittings, devices occasionally found to be defective or excessively worn. Also, a weak point in a hose may readily blow under normal operating pressure (150 psi).

TRANSFER OPERATIONS

In a typical transfer operation there are usually four or more valves to open and close in a precise sequence; thus, opportunities for human error, carelessness and negligence are many and varied. Additionally, physical damage to a transfer hose can cause it to rupture, as might well happen if a truck ran over it. Ammonia may escape from a transport vehicle if in a collision or upset; such was the case when the 33,000 gallon railroad cars exploded at Crete, Nebraska, and Cumming, Iowa in 1969. Vandalism might also be responsible for the release of the irritating gas, and if damage occurred unobserved at night, a real disaster might result. Thousands of gallons could be lost, given a huge storage tank or a tampered valve connected to a pipeline. All cited possibilities, and others, have and will again cause serious injuries to ammonia handlers and persons living and working nearby.

Most emergencies involve one or two persons, but a community disaster is possible. If a leak develops and vaporization occurs there is immediate danger to a worker located directly in the path of escaping gas; the typical farm injury affects one man hit by the vapor stream who usually scrambles out of the vapor path and closes a valve to shut off the flow of ammonia. If the accident occurs at a fertilizer bulk plant, special protective suits are usually available nearby and a worker is protected while he remedies the leak and water can be sprayed on the discharge point until the flow is shut off. Ammonia handlers might be overwhelmed by fumes, however, and unable to handle the problem or call for help. In such instances warning for evacuation of nearby residents might not be possible. In February 1969, a 33,000 gallon rail car burst at Crete, Nebraska, at 6:30 a.m., and before rescue, eight persons died and 70 were injured. A heavy fog held the vapors close to the ground for a long period of time.[4]

With this background information, one can more readily recognize the implications of such accidents as are discovered and investigated by the Accident Prevention Section of the Institute of Agricultural Medicine. Ten victims of ammonia mishaps were interviewed in counties adjacent to Iowa City and the following four were chosen as illustrative of the kinds of injuries and therapeutic problems physicians encounter.

CASE PRESENTATION

Case 1: A 40-year-old employee of an anhydrous ammonia distributing company was injured while transferring liquid from a rail car to a nurse tank. During the filling process, the employee was standing on the side walkway of the rail car. The nurse tank filled more rapidly than expected and before realizing how full it was, the safety relief valve suddenly emitted a spray of ammonia. (This valve is designed to prevent the tank from being overfilled (85 per cent level), assuring space for the anhydrous ammonia to expand with rising temperature, without bursting the tank.) The victim, standing about six feet above the valve, was sprayed on the face and chest. He immediately jumped to the ground and began to wash his face in a water tank located on the premises for such emergencies.

The victim was taken to a local hospital, but quickly transferred to a larger hospital. Facial burns were not extremely serious, both eyes were unaffected, but pulmonary edema and pneumonitis resulting from inhalation developed quickly along with inflammation and edema of the upper airways. A tracheostomy was performed and aspiration was necessary. In treatment, pressurized oxygen, aminophylline, and several antibiotics were used. Recovery was gradual and the patient discharged after 11 days in the hospital. No residual lung damage occurred.

Case 2: A 17-year-old farm boy was injured during a transfer operation involving aqua ammonia (25 per cent ammonia in water). He was applying fertilizer for a commercial concern and his employer was in the field at the time. They were installing a new transfer pump when the accident occurred. With the new pump in place, they started the operation of moving the liquid from the nurse tank to the applicator tank. One hose had not been tightened sufficiently and began to leak. Without shutting off the machine, the victim grasped the hose and began to rotate it to make a tight connection. As he did so, the opposite end of the hose flipped out of the applicator tank and sprayed him with several gallons of aqua ammonia. Knocked down but not panicking, he scrambled to his tractor and used his jug of water to wash his eyes. He then ran 70 yards to a nearby creek and immersed himself, but he did not remove his ammonia-soaked clothing. He noted some tightness of his throat during the first few minutes following the accident and was driven home by his employer.

At home, the boy removed his clothing and rested. He soon noticed, however, that he had received burns to the buttocks due to skin contact with the clothing during the two-mile ride home from the field. Taken to a local hospital, the victim was treated for second degree burns. He completely recovered within a few days. No eye injury was sustained.

Case 3: A 36-year-old manager of an anhydrous ammonia retail operation was injured in a farmer's field to which he had been summoned because of improperly functioning equipment. The farmer was using a seven-row tool bar applicator with a 1,000 gallon nurse tank as direct supply. Anhydrous ammonia runs from the nurse tank through a hose and quick coupling device to a flow regulator on the toolbar and from there out through the individual knives into the ground. The coupling device had been leaking, and so the manager installed a new one. When the new device was tested, by opening the liquid-out valve at the supply tank and permitting ammonia to pass through the hose, leakage occurred again. The man closed the liquid-out valve and attempted to make a tighter connection by jiggling the coupler. The coupler flew apart, and the man was sprayed in the face by anhydrous ammonia that had remained under pressure in the portion of the hose between the coupler and flow regulator.

Immediate blepharospasm prevented him from seeing clearly as he got away from the escaping ammonia stream. The farmer who was with him at the time took him to the rear of the nurse tank and helped him pour a five gallon emergency water supply over his face. He washed with water from a thermos bottle while being driven 25 miles to a doctor's office, where his eyes were irrigated for several minutes.

During the washing, the victim concentrated on the left side of his face, believing that only that part had been affected. His right eye which, in fact, had also been sprayed was thus somewhat neglected and sustained the greater

damage with resultant irritative conjunctivitis and superficial corneal ulceration. Second degree facial burns were also sustained and palpebral edema of the left eye developed of such magnitude as to swell the eye shut several times during the following week. A week later, recovery ensued with no known sequelae.

Case 4: A 45-year-old farmer received a severe eye injury in a field mishap involving transfer of aqua ammonia from nurse tank to applicator tank. As mentioned earlier, aqua ammonia fertilizer requires pumps for filling operations because only relatively low vapor pressures are involved. The victim was attempting his first transfer operation with this particular applicator and power take-off pump when a hose between pump and applicator regulator became unclamped. The hose whipped around four feet from the victim, spraying the left side of his face with solution from the loose end. In the midst of pain and blinking of his eyes, he momentarily fell to his knees. He groped his way to shut off the fertilizer pump and then started walking toward his farmyard, a half-mile away. No water was available and not until he reached his yard 30 minutes later, could he wash his face and eyes.

The victim's wife drove him to the office of the family physician, who further washed the victim's eyes and referred him to a hospital in a nearby city. He had, additionally, sustained minor skin burns and some irritation to the right eye, but damage to the left eye proved quite severe. No symptoms or signs of respiratory tract involvement were noted. After three days in the hospital, the victim returned home with markedly diminished vision in the left eye, with no return in vision during the next few weeks. About a month after the mishap, he lost all sensation on the surface of the globe and inadvertently excoriated the sclera of the left eye. Vital tissue from the sclera of the right eye had to be transplanted to the left eye to repair the defect.

About four months following the injury, a cataract extraction was performed on the left eye with no improvement of vision. Treating and consulting physicians decided that further operative treatment was unlikely to be of benefit. Normal vision was present in the right eye. One year after the accident, the victim had only light perception vision in his left eye and the cornea was considerably vascularized and opacified.

DISCUSSION

INJURY POTENTIAL

After substantial exposure to ammonia, symptoms and signs of varied character and severity may appear. The cause in all exposures is ammonia coming into contact with moisture on body surfaces, vis., the mucous membranes of the upper respiratory tract, skin and eyes. Severity of injury varies with the amount and duration of exposure. The least detectable odor requires a concentration of ammonia in air of 53 ppm (parts per million). Usually 100 ppm can be tolerated for several hours. However, minor unpleasant irritation of the eyes and nose will likely occur at low concentrations with throat irritation beginning at 408 ppm. Immediate eye injury results at 700 ppm with higher concentrations producing greater damage and permanent impairment. Laryngospasm and coughing appear upon inhalation of 1700 ppm and glottal edema may follow within a few hours. Laryngospasm may cause momentary inability to breathe and labored breathing may be present for a few hours. A half-hour exposure of 2500 to 4500 ppm can be fatal and 5000 or more rapidly results in death from respiratory arrest.

While concentration determines the most immediate deleterious effects of exposure, duration is the key to acute and chronic problems thereafter. Relatively mild respiratory tract exposures lead to pharyngitis, laryngitis, tracheitis and bronchitis, depending on the depth of penetration. Pulmonary edema may develop as an acute problem. Chemical pneumonitis may be complicated by bacterial infection. Skin "chemical burns" may range from superficial first to third degree of full thickness burns. Eye injuries are probably the most serious with lacrimation, conjunctivitis, palpebral edema, blepharospasm, and photophobia acute features of present day exposure. Superficial ulceration of the cornea is common. Following lengthy exposure, a latent period of days or weeks may precede occurrence of iritis, development of anterior and posterior synechiae, opacification of the cornea, cataract formation,

appearance of secondary glaucoma or even atrophy of the retina with complete loss of vision.[5] Occasionally, unusual reactions have been reported such as convulsions and shock, abortion and menorrhagia. In most instances, findings are confined to three anatomical areas: respiratory tract damage, skin burns and eye injuries, each of which will be covered in more detail in succeeding paragraphs.

The only real threat to life from an ammonia accident is respiratory tract damage. Response of the respiratory tract is similar for any irritant whether it be ammonia, smoke, ozone, sulfur dioxide, etc. Mucus pours out and cough moves it up and out. When there is cellular damage as in severe ammonia inhalation, permeability of the lung is changed. Fluid is transmitted from blood to alveoli, producing pulmonary edema and interference with oxygen exchange.[6]

RESPIRATORY INJURY

Inhalation of ammonia in a concentration of 408 ppm or more results in throat irritation, for the upper respiratory tract acts as a chemical buffer with tightness and hoarseness the sole likely ill effects. In higher concentrations damage may not extend much below the larynx because of laryngospasm which may prevent ammonia from reaching the lower passages in sufficient amount to cause much injury. Although serving as protection during exposure, larnygospasm may be the most frightening aspect of the accident. Despite the frequent occurrence of laryngospasm, many victims do receive lower tract damage, particularly when ammonia concentration is high or if a moderate amount is inhaled over several minutes. With increasing severity, damage extends to the trachea, bronchi and alveoli.

RESPIRATORY INJURY TREATMENT

Several respiratory tract injuries require prompt treatment. Airway obstruction usually calls for tracheostomy or endotracheal intubation. Sometimes glottal edema develops hours after inhalation, and it is wise to observe the patient for some time after a serious mishap. Secretions and sloughed mucosa may plug the airways requiring aspiration. Oxygen may be necessary in pulmonary edema, as well as bronchodilators, and if pneumonia develops, antibiotic therapy is indicated. Generally, survival after 48 hours assures recovery with no residual effects. Permanent lung damage has not been reported in studies of inhalation injuries.[7, 8] Likewise, chronic inhalation of very low concentrations of ammonia is not deleterious.[9]

In 1941, Caplin[10] described the outcome of 47 patients trapped in an air-raid shelter for more than 10 minutes after an ammonia condenser was pierced. Patients were classified in terms of the presenting clinical state as mild, moderate, or severe. Mild cases (9) suffered slight irritation of the eyes, pain and tightness of the throat, hoarseness occurred and mouths and tongues were intensely reddened. All patients were discharged from the hospital within a few hours. Among the moderate group (27 patients) moist rales, cough and tenacious sputum resulted; three developed pulmonary edema within six hours and expired, nine developed bronchopneumonia on the second and third days and three died. The remaining 15 recovered completely within eight days. All 11 severely affected patients had inflammatory extension throughout the lung parenchyma; they were restless, cyanotic, suffered intense cough and dyspnea, and presented generalized rales and rhonchi. Seven died within two days while four made an uninterrupted recovery.

SKIN INJURIES

Respiratory problems may be life-threatening, but in terms of pain and discomfort, skin injuries also loom as important. Exposure to ammonia may injure the skin in two principal ways: freezing and alkaline caustic action. If the skin is struck by the pressurized jet of liquid ammonia, it is subjected to a temperature of –28° F, causing thrombosis of surface vessels followed by ischemia and necrosis. Another mechanism of tissue injury is the "chemical burn," which occurs whenever a significant amount of ammonia reaches the skin and is not immediately and thoroughly washed off. The "chemical burn" is much more significant than the "freeze," in that it produces much wider destruction. When ammonia reaches the skin it quickly dissolves in surface moisture, producing the dissociated ions of ammonia hydroxide ($NH_4 + OH$) and raising the pH. Ordinarily the lipophilic, hydrophobic epidermis is a relatively good barrier to water soluble substances but highly alkaline substances sa-

ponify the fats of the epidermis breaking the barrier. The chemical then reaches the more hydrophilic dermis. Actually, electrically neutral ammonia (NH_3) is soluble in both fat and water, and even without saponification, ammonia would slowly pass through the epidermis anyway. The ammonium ion has little direct toxic effect on tissues but the high pH is important.[11] Ammonia, because of its peculiar water solubility and rapid attainment of high pH, is one of the most damaging alkaline agents causing denaturation of tissue proteins, forming gel-like alkaline proteinates, and saponifying the fat of cell membranes. Alkalies cause a liquefying necrosis allowing deeper and deeper penetration and producing a lesion far different than coagulation caused by acids. Deeper penetration means greater scarring.

The skin and mucous membranes blister following an ammonia burn and first and second degree skin burns are very common and probably the most constant feature in the farm accident. If enough ammonia strikes the victim to cause eye or throat irritation, then it will undoubtedly hit at least the skin of the face. Although other parts of the body are regularly burned besides the face, burns about the head and neck are probably the most psychologically shocking to patient and physician and the most cosmetically important.

SKIN INJURY TREATMENT

In treating an ammonia burn of the skin, washing with water is essential, while cool, wet compresses may ease the pain after thorough irrigation has been accomplished. Burn shock is usually related to the extent and depth of the burn, but skin burn with ammonia is seldom so extensive as to seriously threaten the victim's life. However, if shock should follow, then fluid replacement may become a necessary part of therapy. Surface treatment of ammonia burns is the same as for thermal burns. Particularly crucial is the avoidance of any salves or greasy ointments, which seem to promote deeper penetration of ammonium hydroxide. The necrotic portion of the epidermis sloughs off in a few days to be replaced by tender, new skin if the burn was not full thickness. Mucous membranes also slough and may obstruct airways requiring immediate aspiration.

Guidelines for Treatment of Ammonia Burns

These four suggestions for use in treating ammonia burns have been developed by a joint committee of the Iowa Society for the Prevention of Blindness and the State Department of Health.

- **Water is the best emergency treatment for ammonia solution burns. If you are called about such an injury, make certain the injured person flushes the eye with water (with lids held open) until you can reach him or until he can get to your office.**
- **No salves, ointments or oils should be applied to an ammonia burn for at least 24 hours following the accident.**
- **If the patient is wearing contact lenses be certain they are removed before the eye is flushed with water. Otherwise, the ammonia will be concentrated under the lens causing even more damage. The proper method of removing the contact from the eye of an injured person is to float the contact off by having the patient open his eyes in a pan of water.**
- **For your own protection the patient should have consultation with a physician who is acquainted with ammonia burns.**

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EYE INJURIES

While respiratory injuries may be lethal and skin burns disfiguring, eye injuries constitute the most serious hazard in regards to permanent disability. Ammonia is one of the most damaging substances affecting the eye and to understand its serious consequences, an understanding of the eye's natural barriers to chemical invaders is necessary.

The cornea is a somewhat impervious barrier holding out many injurious agents. The outermost portion of the cornea is stratified squamous epithelium, five or six cell layers thick, lipophilic in character so that water-soluble (Polar) substances have great difficulty in passing through. Behind epithelium is a stromal condensation, known as Bowman's membrane, and then the stroma itself and this layer holds up fat-soluble (non-Polar) substances. On the inner side of the cornea is the endothelium, a monolayer of cells with Descemet's membrane on its stromal aspect. This cell layer is weakly lipophilic. Thus, polar substances tend to be stopped in the epithelium and endothelium and non-polar materials, in the stroma. Only if the integrity of the epithelial barrier is broken can a water-soluble substance enter the eye with ease to cause a severe lesion. Because acids usually cannot break the barrier their damage is localized to the outer cell layers. Alkalis, on the other hand, tend to saponify and disrupt the fatty epithelial layers and thus quickly traverse the stroma. As mentioned earlier, ammonia is fat-soluble but the key to its rapid penetration is its extreme solubility in water and its destructiveness in an alkaline solution.

The most important mechanism in alkali-caused damage seems to be the shift in hydrogen-ion concentration.[12] The cation appears unimportant, for an ammonium chloride solution injected into a conjunctival sac is relatively inert. A high pH has a definite biochemical action on living tissues; saponification of fats and structural alteration of proteins. Since the mechanism of injury is similar for all alkaline solutions, the determining factor in speed and extent of penetration into the eye becomes the water solubility of the chemical. The fantastically high solubility of ammonia places it at the top of the list of hazardous substances. In his comprehensive review of alkali eye burns, Hughes[13] refers to experiments in which ammonia was detected in the aqueous humour 5 to 15 seconds after an ammonia solution was instilled into the conjunctival sac of a rabbit. A significant rise of pH in the aqueous humour of man has been noted within 30 seconds of ammonia contact. Because of the rapid penetration of ammonia, even prompt irrigation cannot be expected to remove all of the chemical. Although complete elimination of the chemical is practically hopeless, the amount penetrating varies with the duration of exposure, making rapid and copious lavage essential in limiting damage.

The pathological picture of an ammonia eye injury begins when the chemical strikes the eye and dissolves in the surface moisture of the cornea. The epithelium is destroyed and will slough shortly. Biochemical changes in the stroma and disruption of the endothelium follow. If it is a severe exposure, the ammonia may reach the iris and the lens to start the process of destruction there. Edema of the corneal stroma and the ciliary processes begin within a few minutes. Damage to the walls of the limbal and episcleral vessels may produce hemorrhage with a resultant beefy red appearance and later neovascularization of these areas. Alternatively, thrombosis without hemorrhage may occur. Corneal opacity may develop insidously from one week to several weeks after the accident. Opacity results from infiltration of the cornea by inflammatory cells with fibrous tissue scarring and neovascularization following. The presence of tiny blood vessels reaching across the cornea together with the thrombosis of the limbal vessels makes a poor bed for a corneal transplant. Transplants are notoriously unsuccessful in ammonia injuries. Increased intraocular pressure may arise early or late. The pathological mechanism of secondary glaucoma is thought to consist of some disruption of the trabecular meshwork, such as inflammatory swelling or plugging with iris pigment. Cataractous changes develop over several weeks if the lens has been injured.

The clinical picture of an ammonia-injured eye begins with conjunctival hyperemia, lacrimation, photophobia and a dull-looking cornea. The patient may also be in great pain with tight blepharospasm. If the exposure has been severe, then it is possible the corneal nerves may

have been destroyed producing anesthesia. The surface epithelium is apt to be gone within the first few moments. In one experiment,[14] a human eye was exposed to 9 per cent NH_4OH for only 10 seconds; and most of the epithelium was lost and stromal edema and wrinkling of Descemet's membrane occurred within several hours; however, the eye was completely healed at four days. Often on initial examination, a beefy red appearance may be found if hemorrhage has taken place from surface vessels. Contrariwise, the eye may have a pale cooked aspect if thrombosis occurred without hemorrhage. Within hours of the injury increased intra-ocular pressure has been reported.[15] An oval, semi-dilated, nonreacting pupil and corneal edema occurred, simulating acute angle-closure glaucoma. However, a closed chamber angle was not observed. Secondary glaucoma may also appear weeks or months after the mishap. On the third or fourth day iritis and beginning cataract may be discovered. Mild cases of ammonia exposure may completely heal within a week, but more serious injuries leave persistent corneal clouding or become worse. Corneal opacity with a vascular connective tissue membrane may evolve over the first few weeks. Mucopurulent discharge persisting before and behind the cornea, sets the stage for symblepharon and synechiae. If ulceration was rapid and deep, perforation of the cornea may supervene. At best, perforation leaves a dense white leukoma. All of the pathological processes may progress to an end point of cornea, iris and lens all being indiscriminantly fused into a mass of vascular granulation tissue. In that situation, no usable vision could remain. In ammonia accidents, overall, the final reduction of visual acuity is the result of corneal opacification, irregular astigmatism, cataractous change in the lens, secondary glaucoma, or atrophy of the whole globe.

EYE INJURY TREATMENT

The final treatment of a serious ammonia eye injury ought to be handled by an opthalmologist, but emergency copious lavage with water for 15 minutes or more must be implemented as quickly as possible by anyone. All of the ammonia cannot be removed from the eye, and there is no stopping the pathological processes once they have begun. Paracentesis has not been proven helpful.[16] The only hope is *immediate* and *copious* irrigation. If pain and blepharospasm prevent free access to the eye and conjunctival fornices, 0.5 per cent proparacaine drops may be instilled to allow lavage. For irrigating there is nothing better than clean water, and any attempt at chemical antidoting is useless. If water is not available, any bland fluid may be used. Time is more essential than the particular liquid for irrigation. Lavage should continue for 15 to 30 minutes, for tissues may still be releasing ammonia 15 minutes after washing begins. The ophthalmologist will probably then use a cycloplegic such as atropine to prevent synechiae in the presence of iritis. Prophylactic antibiotic ointments may be deemed necessary, and corticosteroid drops often reduce inflammation and retard neovascularization. Patching the eye for rest is often helpful, and systemic analgesics may be given for pain. The specialist may also employ other forms of treatment, but basically little can be done to reverse the disease process in the badly injured eye. If an accident occurs the only real hope lies in rapid and generous lavage.

CONCLUSION

The role of the physician in ammonia injuries in agriculture is a most important one. The obvious obligation is provision of immediate and follow-up care for the ammonia-mishap victims, but more can be done. One area might be the explanation of proper first aid procedures to local law officers or firemen who may provide initial help to the patient exposed to ammonia. The physician might also take the opportunity to talk first aid to farmers or ammonia handlers, particularly emphasizing immediate and copious lavage for at least 15 minutes prior to the patient's examination by a physician.

The patient in Case 4 sustained great eye damage, probably largely because no water was available for 30 minutes. For skin exposure prompt irrigation must be accomplished, and contaminated clothing must be removed. The victim in Case 2 suffered more than superficial burns because clothing was not removed. No salves or ointments should be put on the skin. In inhalation injury, the patient must be removed from the ammonia environment to a medical facility rapidly. If the person

has difficuty in breathing, artificial respiration should be initiated immediately.

An important area is accident prevention. The Iowa Medical Society and physicians must stress the hazards involved in using ammonia. Through social and medical contact, the doctor can educate the community. Anyone working with ammonia should be conscious of the hazard and observe the following: 1) head or body should not be placed in the direct line of valves or hose coupling; 2) stand upwind during a transfer operation; 3) use tight-fitting goggles and rubber gloves as simple but important protective devices; 4) purveyors of ammonia should be provided with protective garments and masks readily available in time of an emergency, and 5) an ample water supply must be nearby. The farmer should have a five-gallon water can with the application equipment directly available. A jug or thermos of water should be carried on the tractor and a small plastic squeeze bottle carried in a shirt or overall pocket.

Physicians must be concerned with the rising incidence of ammonia accidents in agricultural pursuits. If innovative forces of accident prevention are brought to bear on ammonia mishaps, then the numbers of injuries will decline even in face of increasing use of ammonia fertilizers. A new engineering look at the ammonia transfer process with emphasis on safety improvements is needed to further reduce occurrence of ammonia accidents.

Ammonia handling can be made safer.

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Developments in Continuing Medical Education

Nearly 20,000 medical doctors have been honored by the American Medical Association for participation in continuing medical education programs. The AMA Physician's Recognition Award, established in 1969, has now been given to 19,338 MDs. Included in this group are 11,304 physicians who were in residency training when they applied and 8,304 doctors engaged in full-time patient care.

The Award is given for a minimum of 150 credit hours of continuing medical education earned over a continuous three-year qualifying period. At least 60 credit hours must come from any combination of required education categories.

The current listing of continuing education courses for physicians includes 2,319 courses offered by 611 institutions in 41 states, the District of Columbia and Puerto Rico. These courses are listed annually in the AMA JOURNAL.

Continuing education programs have either been implemented or are under consideration by these organizations: Oregon Medical Association, Pennsylvania Medical Society, New Mexico Medical Society, the California Medical Association, American Academy of General Practice, American College of Physicians, American College of Surgeons, and American Psychiatric Association.

Diagnosis of Cerebral Death

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Would you bury a man whose heart is still beating?

The Dean of the College of Medicine of the University of Iowa called together an Ad Hoc Committee for the Evaluation of Death approximately two years ago. The Committee was charged with the task of developing policies for the College regarding the diagnosis of death before transplantation procedures were begun so that this issue could be decided in an atmosphere of calm rather than under the pressure of an urgent need for a vital organ from a potential donor.

If a physician believes there are occasions when death can be defined in terms of irreversible loss of brain function, then he must contend with questions of the type stated above and resolve them to the satisfaction of his own moral and ethical beliefs. Why abandon a time-honored system which defines death by absence of breath on a mirror or cessation of heartbeat? As information accumulates, new insights are gained, and if this accumulation of information occasions a re-examination of established belief, so much the better, for this is the way of progress. On the other hand, if established practices are to be modified, then the new information must be put to the critical test of personal, professional and public scrutiny.

My purpose in writing this article is to acquaint Iowa physicians with the guidelines for the diagnosis of cerebral death currently in existence at the University and Veterans Administration Hospitals. These guidelines are clearly set forth herewith. General comments and reflections about death, both *cerebral death* and *cardiac death* as well as the answer to the question opening this article reflect only the author's personal views.

The traditional definition of death, cessation of heartbeat and respiration, is simple, direct and embodies in it some longstanding and cherished concepts of man regarding himself. The heart has long been considered the seat of emotions and of life itself. In more recent times, the functions of the brain and heart have been better understood. Until only a short time ago there was no purpose in separating irreversible damage and death of the brain from irreversible damage and death of the heart. When the heart ceased to function, cessation of cerebral function occurred within a short time. Cerebral function is irretrievably lost 3 to 5 minutes after perfusion of the brain stops. Thus, until widespread use of techniques of cardiopulmonary resuscitation there was no conflict between the traditional *cardiac* concept of death and what is now called *cerebral death*. For clinical purposes both occurred simultaneously.

The ability of physicians to restore the heart beat and an adequate circulation by means of electrical and pharmacologic means has altered the situation. No longer can loss of an effective cardiac beat be equated with brain death. On numerous occasions in the operating room, in the coronary care unit, and elsewhere, highly skilled teams of physicians and nurses have been able to restore cardiac function and return the patient whose heart has stopped beating to a state of well being. If cardiac function is restored before irreversible changes occur in other organs, well and good. But this is not always the case. The organs and tissues of the body respond to anoxia with wide differences. The brain is most vulnerable; the heart and other organs less vulnerable. The heart may be made to beat again after the brain has suffered irreversible anoxic damage. Most physicians are familiar with the patient whose heart has been resuscitated but whose brain is damaged so severely that he does not

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breathe spontaneously, does not move, and does not give the slightest indication of awareness or need. Respiration, blood pressure and heartbeat are maintained by artificial means. After a variable period—hours, days, weeks or even months, the patient deteriorates. Respiration and circulation can no longer be supported. The heart stops, further resuscitation efforts are unavailing and the patient is pronounced dead. But when really does death occur? Despite the persistence of an artificially maintained heartbeat and respiration is it justified to make a diagnosis of death prior to cessation of the heartbeat? Was the process of death inexorable and past the point of reversibility when the brain was irreversibly damaged?

Death can be identified at several levels: these are cellular death, tissue death, organ death and physiologic death (loss of integrated organ function). Biological research indicates that death of enzymes, cells, tissues and organs does not occur simultaneously with physiologic death. Several hours after pronouncement of death by the criteria of absence of heartbeat and respiration, Kountz[1] has removed a human heart and recorded the spread of electrical activation of atria and ventricles. Cells may be removed from a "dead" individual and kept "alive" in tissue culture for years. Functioning cellular enzymes may be isolated from cells unable to carry out specialized tasks, i.e., muscle contraction. It is clear then, that death as traditionally defined, is not synonomous with permanent loss of all vital functions. A person's dying occurs as a continuum. Loss of integrated organ function occurs long before the last cell ceases to function and the last enzyme system is destroyed. If the process of death is a continuum, one only needs to determine when the process has passed the point of reversibility.

Beecher[2] has submitted a general definition of life as: "the ability to communicate with others. If this ability is lost in *permanent unconsciousness* the future will surely confirm that that man is dead." (Italics added.) The Ad Hoc Committee for the Evaluation of Death appointed by the Dean agreed with this definition of life and the implied definition of death. When destruction of the cognitive and reflex functions of the central nervous system occurs, that is, when the brain dies, man as an individual ceases to exist. When *permanent* unconsciousness and absence of reflexes and absence of spontaneous respiration exist, then man may be considered to be physiologically dead, i.e., loss of integrated organ function has occurred. Integrated organ function has ceased in spite of the continued function, with artificial support, of several other organs including the heart. In reaching this judgement the Committee joined with a large and growing body of scientists, theologians and philosophers.[2-5]

When can the process of death be judged to have passed the point of reversibility when heartbeat and respiration are artificially maintained? Or, to phrase the question differently, when does *permanent irreversible* unconsciousness exist? The Committee formulated the following clinical and laboratory criteria to define cerebral death. These criteria are modifications of those proposed by the Ad Hoc Committee of the Harvard Medical School to examine the definition of brain death. To our knowledge, no patient has ever recovered consciousness or the ability to breathe spontaneously when the criteria listed here have been met.

The Committee recommended that cerebral death should be established by both neurologic and electroencephalographic findings. The neurologic criteria consists of the following: (a) coma with complete unresponsiveness; (b) cessation of spontaneous respirations; (c) no muscle tone and a flaccid paralysis; and (d) absence of all reflexes (including fixed dilated pupils and absence of reflexes mediated through the cranial nerves).

The essence of the electroencephalographic findings is "electrocerebral silence." "Electrocerebral silence" may be present if CNS depressant drugs are present in the brain in anesthetic levels or if severe hypothermia (body temperature 17°C or 62°F) is present. These two conditions must be excluded in the diagnosis of cerebral death. The EEG criteria include: (a) no spontaneous electrical activity at maximum amplifications of the electroencephalograph (2 microvolts/mm); and (b) repeat EEG in 24 hours again demonstrating no spontaneous electrical activity.

The technical criteria for an acceptable EEG recording include that a minimum of 10 scalp electrodes be used in addition to ear reference electrodes. Electrode resistance must be under

10,000 ohms. The operator should deliberately create electrode artifacts to test the apparatus and to check connections. The EEG should be recorded along with an EKG or other monitoring devices so that voltage changes produced by other organs and recorded by the EEG may be identified. For at least part of the recordings, the longest time constant of the electroencephalograph should be used. Tests of reactivity must be performed and montages to include ear referrential runs and long distance scalp to scalp linkages are required. There must be a minimum of 30 minutes total recording time, both initially and at the time of the second EEG 24 hours later.

The neurologic examination and EEG are deliberately precise and detailed. They can be objectively evaluated and quantitated. Sociologic factors (i.e., the man's worth to the community) have not been included and subjective criteria have been eliminated to the extent possible.

Who validates these criteria and how is the pronouncement of death made? The primary responsibility for the pronouncement of death lies with the physician attending the patient. However, when a diagnosis of cerebral death is to be made, the consultative assistance of two physicians must be obtained. These consultants are to be drawn from a group of senior phycians appointed by the Dean to serve on a rotational basis in this capacity. These senior physicians must agree with the physician attending the patient, that cerebral death has occurred before the pronouncement of death can be made. The time of death indicated on the death certificate is that time when the attending physician and the two consultants reach agreement that cerebral death has occurred. The pronouncement of cerebral death should precede the turning off of mechanical support devices for the respiratory or circulatory system.

It should be made clear at this point that the traditional criteria for establishing death, absence of heartbeat and respiration, have not been abandoned. Any physician wishing to use these criteria for establishing death and these alone is free to do so. The Committee's recommendations, now accepted by the Dean and the medical faculty, have enlarged upon the criteria by which death may be established. Thus, when the physician attends a patient with permanent irreversible coma as defined in the preceding, a diagnosis of death may be made at the end of 24 hours. The family of the patient is spared days or possibly weeks of emotional strain and the enormous cost of continued hospitalization.

If the diagnosis of cerebral death is to be made in a patient who is considered a potential donor in a transplant situation, two additional recommendations were made by the Committee. If the attending physician is a member of the transplantation team, the Committee recommends that he relinquish his responsibility for care of the potential donor in favor of another physician not on the transplantation team. The Committee also recommended that none of the senior physicians designated as consultants be members of the transplantation team. These conditions were imposed to eliminate even the slightest hint of undue haste in making the pronouncement of cerebral death. The Committee recognizes the responsibility of a potential recipient to receive an organ in the best possible condition. The Committee also recognizes the responsibility of the University Hospitals and its physicians to protect potential donors from the premature diagnosis of cerebral death.

The criteria for the diagnosis of cerebral death as set forth above are to be reviewed periodically. The University Hospitals are cooperating with nine other centers in a prospective study to delineate and refine electroencephalographic criteria for determining cerebral death. One of the main objectives of this study is to determine that duration of electrocerebral silence which is universally diagnostic of irreversible coma regardless of etiology. The study is designed also to determine that duration of electrocerebral silence which is universally diagnostic of irreversible coma in the following specific categories of etiologies: cerebral hemorrhage, intracranial trauma and post cardiorespiratory arrest. It is likely that the requirement of 24 hours of electrocerebral silence is unnecessarily long for the diagnosis of cerebral death. However, the Committee insisted that great caution be exercised in modifying the criteria spelled out here until definitive studies have validated scientifically any proposed change. The Committee and the College are satisfied that these criteria are sound and that they provide the means for allowing

physicians at the University Hospitals to discharge their dual responsibilities, first to the individual dying, whether or not he is a potential donor, and second, in the case of a proposed transplantation, to the potential donee in providing cadaver organs in a state optimal for transplantation.

Our aim was to provide an operational definition of death, i.e., one that embodied tangible, easily identifiable criteria that could be understood and evaluated by all physicians and intuitively, at least, by laymen as well. The community has always given physicians, by virtue of their special knowledge, interest and skills, the authority to make the diagnosis of death. The vesting of physicians with this authority has been sanctioned in common law. BLACK'S LAW DICTIONARY defines death as follows:

> **"The cessation of life; the ceasing to exist; *defined by physicians* as a total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent there upon, such as respiration, pulsation, etc." (Italics added)**

If physicians are to enlarge upon the criteria for the diagnosis of death, public acceptance of the new criteria will be essential if they are to be embodied in common law. Only the medical profession is equipped to break new scientific ground in the re-evaluation of the diagnosis of death. However, any new or enlarged definition of death must be understood by the layman so that the necessary moral, ethical, and legal evaluations may be made. If our reasoning is sound, our ideas clearly presented and our objectives humanitarian, approval by the community of an enlarged definition of death is to be expected. Public acceptance will be followed inevitably by appropriate legal pronouncements, most likely in the form of judicial decision in test cases brought to the court by physicians.

No one meeting the criteria for "cerebral death" as outlined has recovered cerebral function to any degree measurable by methods now current. The evidence that the process of dying is a continuum is sound. Criteria for determining when the point of reversibility has passed have been established. These criteria are supported by compelling scientific data.

Would I bury a man whose heart is still beating? My answer to that question is "no." Nor would I bury a man whose brain is still capable of function even though his heartbeat has stopped. In days past when the heart stopped beating, the patient was pronounced dead. If brain function was not irretrievably lost at that moment it was certain to be a short time later. The sequence is reversed in *cerebral death.* Once the diagnosis of brain death (hence physiologic death) is made, artificial support devices may be turned off. Absence of spontaneous breathing is one of the criteria used in the diagnosis of brain death, therefore, spontaneous respirations will be absent. Absence of heart beat will soon follow. This sequence is different from the one traditionally followed. Although the sequence is different the same concepts of reason and humanitarianism traditional to medicine apply.

Death thus identified will be marked by a greater dignity than that which may accompany death defined by traditional criteria and following prolonged futile attempts at mechanical support of individual organs. Insofar as transplantation of organs is facilitated, death may even be viewed as a creative act, in the sense that another desperately ill individual may be made whole by the gift of an organ.

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New Dimensions in the Diagnosis of Death —The Doctor's Liability— A Lawyer's Advice

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About a decade ago, a doctor's diagnosis of death warranted no special attention. Notwithstanding the usual malpractice suits based on negligence, there existed no reason to question a diagnosis of death. The doctor was viewed as physician and healer, dedicated to the maintenance of life and his diagnosis of death had a neutral complexion.

New developments in life supportive devices have placed a spotlight on the doctor's diagnosis of death. These advances have given rise to new considerations in the diagnosis of death. Hamlin[1] astutely observed that respirators and heart stimulators can maintain "the look of life in the face of death." This is an apt description of the patient who, for example, continues to breathe because a respiratory device pumps air in and out of his lungs, and a defibrillator or pacemaker electronically stimulates his heart, and intravenous fluids maintain an electrolyte and caloric balance—all with a totally flat electroencephalograph reading.[2]

Most of us realize that the diagnosis of death in the comatose patient receives careful, skillful and deliberate analysis by attending doctors. What we do not realize is that the diagnosis is made on a subjective basis, without the protection of accepted criteria. The problem is that the traditional criteria for determining when death occurs, or conversely when life leaves the body, breaks down when applied to comatose patients on life supportive machines. Clinical death recognizes the close inter-relationship between the heart, lungs and brain; and is based partially upon the fact that if any one of these organs were to stop functioning, the other two would quickly follow with the result being the death of the whole biological entity.[3] Obviously, this standard of clinical death, with the heart, lungs and brain as the triumvirate of the body, is inapplicable where the patient has suffered cerebral death but the other two vital signs read positive because of stimulation from extracorporeal machines. Suffice it to say, that resuscitative and life supportive devices have added a new dimension to the diagnosis of death.

The problem of the diagnosis of death in comatose patients supported by resuscitative machines has been further complicated by the advent of transplantation. The first heart transplant and all its attendant publicity focused great attention on the diagnosis of death. The problem of determining the point when life ceases came under public scrutiny with the appearance of an interested third party waiting in the wings for a vital part, a part without which the dying patient's life would certainly be terminated, and without which the waiting donee would certainly die.

What kind of pressure does this waiting donee bring to bear on the diagnosis of death? Does the doctor's knowledge that the cells of organs undergo rapid debilitation at the time of death, coupled with his knowledge that successful transplants require fresh organs, rush his diagnosis? A conflict of interest situation has arisen and, as a result, the doctor's role in the diagnosis of death of comatose patients, especially those who are prospective donors, has become the object of public suspicion. No longer is the doctor's mind devoted 100 per cent to the Hippocratic concept of maintenance of life of the patient. Regardless of how ethical the doctor tries to be, his knowledge (that the sooner the diagnosis of death is made, the bet-

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ter the chance for a successful transplant) claims a portion of his thoughts, and by so doing robs the patient of his right to undivided loyalty.

The diagnosis of death should be made free of compromising influences, if the doctor is to act in the best interests of his patient, and avoid liability.[4]

Doctors have escaped liability in the past mostly because of the general public's acceptance of their expertise. Today the doctor's position is more precarious than ever since the heart transplant has introduced an adverse party (the waiting donee) who stands to benefit from the doctor's diagnosis of death. In the transplant situation there exist classic and fundamental elements of the law suit. The doctor is open to attack from both sides, representatives of the deceased patient could charge wrongful death as a result of a negligent, premature diagnosis; while on the other hand, representatives of the deceased donee could entertain a charge for wrongful death resulting from a belated diagnosis of death. In addition to being vulnerable to legal attack from both donor and donee, the public, who formerly had no reason to question the diagnosis of death, now asks about the rights and duties inherent in these situations. To avoid liability in the future and maintain a good public image, doctors should shield themselves with medical guidelines for determining death.

It should not be inferred that the law discourages the gift of organs after death. Quite to the contrary, those individuals who wish to donate part, or parts, of their body after death, may do so under the Uniform Anatomical Gifts Act. Neither should it be interpreted that the onus of undivided loyalty that falls on the doctor's shoulders should preclude him from ethically or legally performing transplants. It should preclude a premature diagnosis of death. The patient's wish (or family's consent) that part of his body be donated after death should not be misconstrued to mean that the patient allows a premature diagnosis of death in order to effectuate his gift. The law never has, and does not now, recognize a right for an individual to give his own life. The point is this, that neither the patient's own personal interests, nor the doctor's interest, nor the interest of a third party should dilute the doctor's loyalty to the patient.

The comatose patient and the transplant patient have introduced serious and far reaching difficulties for the doctor in his diagnosis of death. It is important to note that day by day decisions, each fraught with liability, are being made in this new area. Without an accepted criteria, doctors assume personal liability for these decisions and thus occupy the unenviable position of being unable to vindicate their actions by reference to accepted medical standards.

(An illustration of the medical and legal professions cooperating in this area is available from Colorado. The Colorado Medical Association sought legal advice in establishing general standards for the selection of renal transplant patients. As an outgrowth of this collaboration, the CMA has adopted guidelines which have since afforded the medical community a workable set of protective standards, and the public with a set of expectations.)

The existence of this new, medical no-man's land gives the tort claimant a distinct advantage in the courtroom where medical issues are determined by medical authority.[5] Wrongful death actions, for example, usually turn on the issue of the degree of care exercised by the doctor. Since the medical community has failed to authorize a set of guidelines for the diagnosis of death, the authority determining whether the defendant doctor's care constituted negligence would be an expert's testimony, and the outcome of the trial would then depend on which side won the battle of the expert witnesses. Thus it becomes patent that the medical community should take upon itself the responsibility of establishing an objective standard to which all doctors can adhere. If such criteria were established, spurious claims could be dismissed by the court, upon proper motion, without the bother of trial.

Many articles have dealt with the task of extending the existing criteria for determining death, to cover the recent developments in life and transplant situations.[6, 7, 8] Following are some new criteria which represent a crystallization of the thinking in this area. This excerpt is taken from a report of the Ad Hoc Committee of the Harvard Medical School and should be read in its entirety for a basic grasp of the problem. The criteria set forth are characteristics of irreversible coma which the Com-

mittee[5] suggests as a new definition of death.

"**1. Unreceptivity and Unresponsitivity.**—There is a total unawareness to externally applied stimuli and inner need and complete unresponsiveness —our definition of irreversible coma. Even the most intensely painful stimuli evoke no vocal or other response, not even a groan, withdrawal of a limb, or quickening of respiration.

"**2. No movements or Breathing.**—Observations covering a period of at least one hour by physicians is adequate to satisfy the criteria of no spontaneous muscular movements or spontaneous respiration or response to stimuli such as pain, touch, sound, or light. After the patient is on a mechanical respirator, the total absence of spontaneous breathing may be established by turning off the respirator for three minutes and observing whether there is any effort on the part of the subject to breathe spontaneously. (The respirator may be turned off for this time provided that at the start of the trial period the patient's carbon dioxide tension is within the normal range, and provided also that the patient had been breathing room air for at least 10 minutes prior to the trial.)

"**3. No Reflexes.**—Irreversible coma with abolition of central nervous system activity is evidenced in part by the absence of elicitable reflexes. The pupil will be fixed and dilated and will not respond to a direct source of bright light. Since the establishment of a fixed, dilated pupil is clear-cut in clinical practice, there should be no uncertainty as to its presence. Ocular movement (to head turning and to irrigation of the ears with ice water) and blinking are absent. There is no evidence of postural activity (decerebrate or other). Swallowing, yawning, vocalization are in abeyance. Corneal and pharyngeal reflexes are absent.

"As a rule the stretch of tendon reflexes cannot be elicited; i.e., tapping the tendons of the biceps, triceps, and pronator muscles, quadriceps and gastrocnemius muscles with the reflex hammer elicits no contraction of the respective muscles. Plantar or noxious stimulation gives no response.

"**4. Flat Electroencephalogram.** Of great confirmatory value is the flat or isoelectric EEG. We must assume that the electrodes have been properly applied, that the apparatus is functioning normally, and that the personnel in charge are competent. We consider it prudent to have one channel of the apparatus used for an electrocardiogram. This channel will monitor the ECG so that, if it appears in the electroencephalographic leads because of high resistance, it can be readily identified. It also establishes the presence of the active heart in the absence of the EEG. We recommend that another channel be used for a noncephalic lead. This will pick up space-borne or vibration-borne artifacts and identify them. The simplest form of such a monitoring noncephalic electrode has two leads over the dorsum of the hand, preferably the right hand, so the ECG will be minimal or absent. Since one of the requirements of this state is that there be no muscle activity, these two dorsal hand electrodes will not be bothered by muscle artifact. The apparatus should be run at standard gains 10pv/mm, 50pv/5 mm. Also it should be isoelectric at double this standard gain which is 5pv/mm or 25pv/5 mm. At least 10 full minutes of recording are desirable, but twice that would be better.

"It is also suggested that the gains at some point be opened to their full amplitude for a brief period (5 to 100 seconds) to see what is going on. Usually in an intensive care unit artifacts will dominate the picture, but these are readily identifiable. There shall be no electroencephalographic response to noise or to pinch.

"All of the above tests shall be repeated at least 24 hours later with no change.

"The validity of such data as indications of irreversible cerebral damage depends on the exclusion of two conditions: hypothermia (temperature below 90 F (32.2 C) or central nervous system depressants, such as barbiturates."

This, basically, is an enlargement of the criteria set out by the World Medical Association Meeting in Sydney, Australia, in 1968; and also is inclusive of Hamlin's guidelines. We would suggest two additional criteria to insure a valid diagnosis: the stoppage of blood flow to the brain as judged by angiograph, and no reaction to atropine. The Electroencephalograph Society adds a check of normal basic laboratory data including an electrolytical pattern; and a recent C.I.B.A. Foundation Symposium included "falling blood pressure" (where maintenance of blood pressure demands increasing doses of vasopressor drugs) as an additional guideline. Religious officials agree that there is an immediate need to establish these criteria.[9, 10]

The effect of the implementation of these proposed criteria would be that doctors, upon following all the guidelines with negative results, would pronounce comatose patients dependent on life supportive machines dead, thereby ending vain efforts at resuscitation that sometimes extend for days, cost exorbitantly, and produce false hopes. The legal effect would be to establish an authoritative standard in a field otherwise fraught with liability and chaos.

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Recertification

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RECERTIFICATION IMMEDIATELY suggests examinations. Introduce the topic at any medical gathering and you will hear reactions which range from mild acceptance to rabid rejection. I should like to consider an appraisal of self-education as a substitute for recertification. In reality, recertification is a repetition at some point in time of what we have always known as certification. Certification by definition or objective implies measurable attributes in the individual who is certified. The goal of certification is to attest that a doctor is competent to deliver good medical care in his specialty. Certification must be based on measurable attributes of performance in terms of that goal.

A certificate attests to the competence of a doctor to perform but gives little assurance of the actual performance. A close look at usual certification techniques tells us that what is measured is essentially a body of knowledge. Furthermore, the measure of this knowledge is usually based on the process of recall, whether it is derived through essay, multiple choice, oral or other techniques of examination. There is widespread uneasiness among specialty boards about the reliability and validity of their testing methods. This is reflected in the persistent debates over the relative merits of essay, objective, oral and practical examinations. Most debates are marked more by the contentiousness of protagonists than by the solidity of data.

To illustrate the uncertainties about assessment, let me report on a study of the American Board of Orthopaedic Surgery started in 1964 in collaboration with the Office of Research in Medical Education at the University of Illinois. The board examinations, almost from their beginning, consisted of an essay section, plus 20-minute oral examinations by each of five examiners in anatomy, physiology and biochemistry, pathology, children's orthopedics, and adult orthopedics. From time to time changes were made: a separate oral examination in fractures was added, and gradually the essay portion took on a multiple choice form. Along the way several other techniques were attempted. These included the short essay, blank completion and the use of visual aid equipment to project x-rays or microscopic slides. In 1963, it became apparent that the job of formulating and grading the various examinations was becoming more and more complicated with more and more errors. These developments prompted an intensive study of the entire board certification format.

The first step, a formidable task, involved defining in detail the critical components of competence in the specialty (Figure 1). This was carried out by the critical incident technique. Eleven hundred orthopaedists provided 1,700 individual incidents which were sorted and categorized. The nine most common categories of performance were determined by the critical incident study (Figure 2). There were 94 sub-categories of identifiable behavior. With

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ORTHOPEDIC TRAINING STUDY

I - Critical incident categorization

II - Study of present methods of assessment

III - Development and testing of new techniques of assessment

IV - 10 yr. review to compare and determine differences in old and new assessment methods

Figure 1

CATEGORIES of PERFORMANCE DETERMINED as CRITICAL by INCIDENT STUDY

I - Skill in gathering clinical information

II - Effectiveness in using special diagnostic methods

III - Competence in developing a diagnosis

IV - Judgement in deciding on appropriate care

V - Judgement and skill in implementing treatment

VI - Effectiveness in treating emergency patients

VII - Competence in providing continuing care

VIII - Effectiveness of physician-patient relationship

IX - Accepting responsibilities of a physician

Figure 2

this classification as an outline of professional competence, a systematic analysis was made of the certifying examination then in use (Figure 3). The findings confirmed a suspicion that (1) the sampling of both subject matter and professional skills in orthopaedics was incomplete, and (2) the oral examination duplicated in large measure both the content and process of the written examinations. Criteria by which candidates were judged, as well as the standards to which they were held by different oral examiners, were often unclear and variable. The revelation that multiple choice examinations primarily assessed a candidate's ability to recall isolated fragments of information did not precipitate abandonment of the multiple choice form, but stimulated efforts to develop objective methods that probed more complex intellectual processes.

A series of task forces were charged with developing a blueprint for the certifying process—an outline of the subject matter content, intellectual processes, professional skills and attitudes to be used in the certification procedure with a relative importance assigned to each. It was then necessary to classify each question in the multiple choice pool to determine whether it dealt, for example, with adults or children, basic science or disease, information recall, data analysis or problem solving. One task force created patient management problems and another concerned itself with improvement in oral examinations to get interrater reliability through the use of standard material. The final examination blueprint distinguishes between content and process in the cognitive, affective and psychomotor domains, and when each is broken into its component parts, a percentage is assigned to each to show its weight on the final grade profile (Figure 4). This can be applied to the multiple choice, the orals, patient management problems, and hopefully to other newly designed testing devices.

Since many performance skills cannot be assessed accurately in a brief encounter, like the examination, it is necessary to gather information from those in a position to observe candidates over a prolonged period. Reliability

CLASSIFICATION OF INTELLECTUAL PROCESSES ASSESSED BY PRESENT PROCEDURES

LEVEL

1 : Recall of isolated information, recognition of meaning

1.5 : Recall and recognition of more generalized information

2 : Selection of a relevant generalization or explanation of specific phenomena

3 : Problem solving of a familiar type

4 : Problem solving of an unfamiliar type

5 : Evaluation of a total situation

6 : Synthesis of a variety of elements of knowledge into an original and meaningful whole

Figure 3

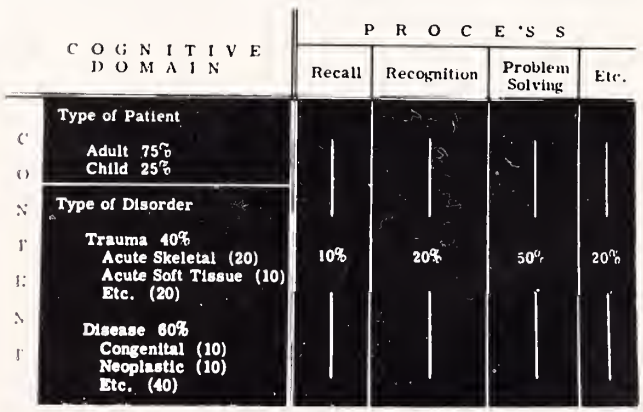

Figure 4

can be increased by introducing specific criteria to guide observers in making their judgments. While this is the newest part of the examination, it is not too early to note that the information it has contributed is more useful than that obtained through less structured methods of the past. The in-training examination, which has been given by the American Academy of Orthopaedic Surgeons yearly since 1963, has become a tool for the Board to test newly devised techniques, to test reliability and validity of multiple choice and patient management problems, and also to test innovations. One hundred and fifty examiners have taken the in-training examination along with the residents across the nation. This allowed comparison of practicing orthopaedists with those in training. On one clinical management problem which was lengthy and complex and provided many options, an analysis showed that examiners as a whole were significantly less thorough than the candidates in assembling diagnostic information before taking therapeutic action. The difference was not evident in comparison of candidates and examiners who were under 47 years of age, but among older practitioners the leap to action on the basis of limited data was increasingly apparent.

We know that certain categories of performance, such as acceptance of responsibility, effectiveness of physician-patient relationship, competence in providing continuing care, etc., are not really tested by the examinations to date. We must devise means to measure many of these attributes. Suppose that we could test all attributes and feel comfortable about certification—what do we know about standards of care to which we are certifying? What are the public expectations and how do our artifically set standards, if any, match theirs? I will now refer to the National Health Program for Orthopaedics, a rather extensive survey of the entire field of orthopaedics published in 1969 and sponsored by the American Academy of Orthopaedic Surgeons to assess the present status of orthopaedic surgery and to determine unmet needs.

I should like to quote from the chapter on "Quality Control" from the National Health Program for Orthopaedics; I believe the quote would be essentially applicable in most fields of medicine:

"Our greatest unmet need in quality control is a body of agreed standards against which to measure the quality of orthopaedic services. Unaccredited hospitals sometimes do not enforce even minimum control in granting privileges to render orthopaedic services. In the area of the allied health services there are no agreed standards for granting privileges to perform patient care services, and no mechanism of auditing the services delivered. Orthopaedic services are now monitored by external and internal hospital audits. External audits are in many cases done at infrequent intervals and they are not necessarily focused on the orthopaedic records. Internal audits are usually not specifically focused on the problems of delivery of orthopaedic service. In both instances, the concern is principally with the hospital stay and not with end results of treatment. The primary obstacle in the development of standards of quality of orthopaedic service is lack of sufficient data. We lack a standardized nomenclature of disease and a standard terminology for diagnosis, operative procedures, and reporting of results. Present mechanisms for retrieving data on patient care are slow and often inaccurate. Records often do not include end results, but only routine data on the hospital stay and unusual complications. The end results of orthopaedic procedures are usually not known by the time the patient leaves the hospital; therefore we have no suitable follow-up mechanism for accurate assessment for long term results. Evaluative procedures have not been developed to determine the quality and effectiveness of the services rendered by allied health personnel and this represents an obstacle to quality control in these categories of health workers."

The American Hospital Association, through the Council on Hospital Accreditation, has imposed certain standards, however these apply necessarily only while patients are hospitalized. National organizations have made efforts to derive standards such as those developed for the management of children's orthopaedic problems, a conjoined effort of the American Academy of Orthopaedic Surgeons and the American Academy of Pediatrics. The National Research Council, with representatives from many segments of medicine, has set up standards for care of the amputee. All of these so

far do not pertain to the individual doctor's practice, but are utilized for approval of federal grants to centers in compliance. This in no way represents a national standard for health care.

If standards were available the only mechanism to police these standards at the present time would be the hospital accreditation board, the federal government, or perhaps the legal profession. Since the majority of doctors are self-employed and we hope will remain so, they are also self-policed. This means setting individual standards. By far the majority of doctors have lived by self-imposed standards based on self-pride, conscience, peer respect, certification, and a spirit of pride in their work. The liberty of self-judgment will continue only so long as we accept the responsibility and so long as our competence provides comprehensive delivery of good health care. It is incumbent on each of us to partake in self-improvement throughout our lifetime in order that we might preserve our competence.

If we are to preserve this competence in the face of expanding knowledge, we need a yardstick to judge competence. This yardstick must have the capability to point out deficiencies and omissions in our performance and knowledge. If a measure of competence is analyzed on a broad national scale, we would have the opportunity for comparison with our own individual competence. Such analyses could serve as the criteria for meaningful continuing education. Such structuring would provide the options for each of us to direct our self-improvement. If task forces in all disciplines of medicine work as diligently as have the orthopaedists, there is the chance that a proper examination can be administered to give each of us the information which we need to know about ourselves. This guide to our continuing education might reassure the public of the highest standards in health care delivery. No agency, including the federal government, could fail to recognize such efforts and would likely leave us self-policed. Recertification could become acceptable if properly done and properly used as a guide to self-improvement.

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Editorials

ON READING JOURNALS

Medical journals certainly pile up, don't they? Does your desk have as many partially-read or scanned-only journals as those of your colleagues? Kotre* *et al* of the Center for Research on Utilization of Scientific Knowledge at the University of Michigan, recently evaluated the use of medical journals by Michigan physicians. The average amount of time given each week to reading was close to three hours, or approximately five per cent of the typical work week. This amounted to more time than was spent on hospital meetings, informal discussions with other physicians, or listening to tape recordings.

The analysis showed further that general practitioners subscribed to fewer journals and spent less time reading them. Internists spent the most time reading journals while psychiatrists reported the least journal use. Though the pediatricians subscribed to more journals than any other group, their colleagues in internal medicine, surgery, and obstetrics-gynecology spent as much or more time reading them.

Physicians in the younger age group and those not in solo practice as a whole spent more time reading medical journals. As the press of time with growing solo practices becomes more acute, the unread journals pile up unread. As age advances, reading journals from cover to cover declines. Skimming or scanning the journals reaches a peak during the older years, with a decline in this beginning beyond 65 years of age. Every age group, however, was found to cover selected articles in their entirety.

General practitioners were the least satisfied with medical journals, though half of them agreed that journals are their best source of information. Perhaps this can be explained to some degree by the demands of specialty training wherein the assignment of research projects utilizing the medical literature is stressed during the residency years. Certainly habits formed in those hectic years may carry over into practice years.

It becomes evident then that general medical journals such as those published by state medical societies must develop an appeal to all, but must also provide information of a specialized nature to maintain support and interest among all facets of the profession. Perhaps rather than long formal scientific articles the need is instead for concise summaries. What do you think?

MATTER OF LIFE AND DEATH

There is a dignity in dying that doctors should not dare to deny. ANON.

When does life begin? When does life cease? Two papers in this issue of the JOURNAL discuss death in terms of the moment when life ceases. No longer is it enough to consider a patient dead when there is no heart beat or when no perceptible respiratory function can be ascertained. In his time, Henry Wadsworth Longfellow (1807-1882) was correct when he wrote in *Christus: A Mystery:*

" 'Tis the cessation of our breath.
Silent and motionless we lie;
And no one knoweth more than this."

The questions which arise from a medical, moral and legal sense as to when a person is

* Kotre, J. N. *et al:* Michigan physician's use and evaluation of his medical journal. Mich. Med., **70**:11-16, 1971.

dead have a real place in the consideration of organ transplantation.

The most recent issue (March, 1971) of ETC.: A REVIEW OF GENERAL SEMANTICS carries a provocative essay by Joseph W. Still, M.D., on the semantics of life and death. He specifies five levels of life: (1) cellular, (2) organ, (3) organismal, (4) psychic, and (5) vegetative. He defines life as "a dynamic state of organization ultimately dependent for its continuation on biochemical energy being fed into the system under consideration. The dynamic organization makes it possible for the total system to perform functions that the separate parts (molecules, macromolecules, cells or organs) cannot perform unless they are related to each other in this ongoing way."

In addition to cell and organ death, there are three other forms of death—organismal death due to physiologic disorganization, and with the chemical disorganization of brain cells —psychic and vegetative death. If an individual can be restored to organismal life by resuscitation after a five to eight minute period of anoxia, he remains in a state of permanent coma. All possibility of psychic life will have been lost by virtue of destruction of cerebral cortex cells. The cells of the vegetative brain have not been seriously destroyed, but the cortical brain functions will have ceased forever—the uniquely human attributes of recallable memory, speech, abstract thinking and creativity have expired.

Vegetative death may not occur until weeks, months or even years after psychic death, though usually they occur in rapid sequence. When the vegetative brain dies, the specialization of its function of controlling the automatic and unconscious physiological function of the whole organism dies.

Now, where does this lead us when a transplant of a vital organ is contemplated? The electro-encephalogram delineates cortical activity and tells us when psychic death has occurred. Only vegetative death remains—a chemical decomposition of the brain stem. The heart may still register activity—though respiration may have to be artificially controlled. Is the brain stem a separate organ? Is it necessary to wait for the full impact of cellular and organ death in all areas of the total organism?

Then, while you are thinking on these things, try to reverse the processes in your mind. When does life begin? Is a total organism representative of life at the cellular level, organism level or psychic level? Very interesting!

THE NOT SO HIGH BUT MIGHTY MITE

How often have you been asked by a patient afflicted with asthma about the advantages of moving to a mountainous area for the relief of the wheezing and discomfort of the disease? Such factors as "thinner air," solar radiation and lower oxygen pressure have been ascribed to be beneficial to the asthma sufferer. Now Spieksma* *et al* have presented another hypothesis which is of interest—that at higher altitudes there are fewer or no house-dust mites.

Several years ago the Dutch medical literature presented a scientific explanation for house-dust allergy . . . that the offender was the house-dust mite *Dermatophogoides pteronyssinus*. These mites are very sensitive to humidity and are much less prevalent when the relative humidity drops below 60 per cent. Tropical mountainous areas would have higher humidity so that one could not expect an absence of mites in the house-dust of such geographic areas.

However, the work done by Spieksma in Switzerland confirms that at elevations of approximately 4,000 feet (Denver—5,280 feet) the population of mites in house-dust is very low. The allergens formed by the dead mites and excretions as well as the live mites is likewise lower in these instances.

The studies thus presented do not answer all the questions regarding house-dust allergy and the favorable responses seen by the patients when they retreat to higher altitudes. It would be very interesting to know if studies are being made in the mountainous areas of the United States in an attempt to confirm these postulates. The mites may not be so high—but yet at lower altitudes very mighty.

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* Spieksma, F. T., *et al:* High altitudes and housemites. BRIT. MED. J., 1:82-86, 1971.

University Hospitals DRUG LETTER

Drug Interactions in Anesthesia

M. M. GHONEIM, M.D.
Iowa City

Hospitalized patients often receive multiple medications to which the anesthesiologist adds more. This polypharmacy exposes the patient to a staggering number of possible interactions. These may be of therapeutic benefit, of not much significance, or harmful enough to precipitate a catastrophe. One of the important reasons for a preoperative visit by the anesthesiologist is to interrogate the patient about the present and past history of drug intake. Unfortunately, some patients still come to the hospital carrying drugs unlabeled and of unknown identity. It is apparent that physicians need to be reminded of the hazards involved. These will not be avoided by the sheer act of cataloguing and memorizing; it is essential to understand the basic mechanisms involved. However, there are a number of good reviews of the subject and the limited space provided here allows only a few examples. For convenience, we will discuss these interactions according to the disease for which the drugs were prescribed.

CARDIOVASCULAR DISEASE

Quinidine: Quinidine interacts with the muscle relaxants to produce a prolonged neuromuscular blockade. This potentiation is exhibited with both the depolarizing and the non-depolarizing blockers and is not antagonized by edrophonium or neostigmine. The mechanism of interaction remains obscure, though it may be partly explained by the local anesthetic action of quinidine interfering with the release of acetylcholine at the motor nerve terminal.

Diuretics: If they cause potassium depletion, they may enhance the action of the non-depolarizing myoneural blockers. This is due to elevation of the resting membrane potential of the muscle fibre.

Digitalis: Succinylcholine can produce serious ventricular arrythmias in the fully digitalized patient. It has been proposed that the ventricular pacemaker fibres are innervated by sympathetic nerves which contain acetylcholine. The latter would act on the storage depot of catecholamines, effecting their release. This results in an increased firing rate of the ventricular pacemakers. Succinylcholine which is structurally similar to acetylcholine mimics the latter's action. Animal studies also indicate that cyclopropane may behave similar to succinylcholine. If the pattern in man proves similar, a patient who is fully digitalized when awake may show signs of intoxication during cyclopropane anesthesia.

Anti-hypertension therapy: Patients on antihypertensive therapy are liable to suffer from severe fall in blood pressure refractory to some vasopressors, when given general anesthesia unless certain precautionary measures are taken. This is usually due to depletion of the norepinephrine stores at the postganglionic sympathetic nerve endings which impair the cardiovascular reflexes compensating for the cardiac depressant effects of anesthetics and the circulatory alterations produced under anesthesia. It is acknowledged that the most important protections to the patient are: recognition of the potential hazards involved, rapid and effective treatment once the blood pressure falls and titrating the patient's anesthetic dose. The choice and the dosage of a vasopressor, if needed, must be appropriate to the underlying deficit.

Ganglionic blocking agents, though not used much currently, prolong the apnea produced by muscle relaxants. The hypotension produced by d-tubocurarine is also potentiated. This is not surprising in view of the similarity of the physiological mechanisms at the sympathetic ganglia and the neuromuscular junction.

Beta adrenergic blocking agents: Patients with beta adrenergic blockade exhibit decreased tolerance to factors that increase the cardiac work such as change of posture, hemorrhage, hypoxemia or metabolic acidosis. The catecholamine release which supports the cardiovascular system during diethyl ether or cyclopropane anesthesia is diminished or absent.

INFECTIONS

Antibiotics: Most antibiotics, with the exception of penicillin have weak neuromuscular blocking activity. This is mainly due to interference with the release of acetylcholine at the motor nerve terminal, by chelating calcium. The blockade has been shown to be potentiated by diethyl ether and by such neuromuscular blockers as d-tubocurarine, galamine and succinylcholine. Although

(Please turn to page 296)

Dr. Ghoneim is an assistant professor in the Department of Anesthesiology at The U. of I. College of Medicine. This editorial appeared initially in the December, 1970 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

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UNIVERSITY DRUG LETTER (cont'd)

the adverse effects usually occur when the antibiotics are given intraperitoneally, other modes of administration may also be hazardous. Calcium ion is a good antidote. A recent clinical report suggested that the concurrent administration of methoxyflurane and tetracycline may seriously impair the renal function. Since either agent may exhibit a nephrotoxic action by its own and there were no control groups studied, further clarification is needed.

Steroids: It is now widely recognized that patients who have had steroid treatment or are taking steroids may suffer from adrenocortical insufficiency during or following surgery unless adequately prepared. The choice of patients who need steroid cover prior to operation is open to argument. Oyama recently suggested that these should include patients being treated with steroids at the time of the operation, patients with a history of continuous steroid treatment for more than one month within the last six months prior to surgery and those who received total steroids equivalent to more than 1 gm of cortisol within the last six months.

EYE DISEASE

Some highly potent anticholinesterases, such as echothiophate iodide are used in the treatment of open-angle glaucoma. Prolonged apnea may occur if succinylcholine is used in patients taking these eye drops. Surprisingly, the effect on the cholinesterases may persist for months after cessation of the treatment. Thus, even a past history of using these drugs has to be taken into account.

MALIGNANCY

Anti-cancer chemotherapeutic drugs: Prolonged apnea has been reported after the use of myoneural blocking agents in patients on nitrogen mustard therapy. The latter inhibits the hydrolysis of acetylcholine by the esterase and the synthesis of acetylcholine by cholinacetylase. Prolonged apnea has also been reported after the use of succinylcholine in patients receiving the drug AB-132. The latter causes marked depletion of the plasma pseudocholinesterase.

PREGNANCY

Magnesium: Magnesium sulfate ($MgSo_4$) is used in the treatment of pre-eclamptic and eclamptic toxemias. The magnesium ion produces blockade at the neuromuscular junction which is mainly due to decrease in the amount of acetylcholine liberated from the motor nerve terminal. It appears that calcium ions are needed for the release of acetylcholine and that magnesium interferes with this release. The hazards of administering neuromuscular blockers to patients on magnesium therapy were recently reported, and the synergistic nature of the interaction was confirmed in the laboratory.

Oxytocics: There have been reported cases of severe hypertension, sometimes with rupture of a cerebral vessel causing brain damage and hemiplegia after the combine use of a vasopressor and an oxytocic. The ergot alkaloids stimulate the vascular smooth muscle directly and this adds to the vasoconstrictor effect of the vasopressor. Natural oxytocin (pitocin) may also cause vasoconstriction, due to contamination with vasopressin which would be potentiated in the same way. The vasopressor may have been used prophylactically or for the treatment of hypotension during spinal, epidural or general anesthesia. It may also have been combined with a local anesthetic for infiltrating the perineum or for pudenal or caudal block. It is important to remember that the action of ergonovine and methylergonovine lasts for several hours and that ergotamine which is used for treatment of migraine may last as long as 24 hours.

PSYCHIATRIC DISEASES

It is common for patients who come to surgery to be on tranquilizers, psychotropic drugs or other central depressant drugs. These usually add to the respiratory depression produced by premedicant and anesthetic drugs. While respiratory depression during the operative period rarely constitutes a problem, the situation is different in the early postoperative period. The combination of depressed ciliary activity, and depressed cough reflex with the possibility of pulmonary aspiration and excess secretions due to artificial airways increase the incidence of postoperative pulmonary morbidity. Patients who are taking phenothiazine drugs may have precipitous fall in blood pressure when given general or spinal anesthesia. This is due to the alpha-adrenergic blocking action of the phenothiazines. If epinephrine is given, it may cause more deterioration of the blood pressure level and cardiovascular collapse. Monoamine oxidase inhibitors (MAOI) interact with many drugs including narcotics, barbiturates, anesthetics, and sympathomimetics. The interaction may cause respiratory depression, hypertension or coma among other manifestations. Fortunately the use of MAOI has dropped markedly with the knowledge about these hazardous interactions. In the rare case of encountering a patient who is taking one of these drugs, it is advisable to postpone the surgery for at least two weeks after withholding the treatment. If this is not possible one should remember to avoid the use of meperidine, vasopressors, and multiplicity of drugs in general.

American Association of Medical Assistants

State of Iowa, Inc.

The Medical Assistant—A Career

This is the time of year when many young people are being graduated from high school and college, and, strangely enough, there are those who are still searching for their "slot" in this busy world. Perhaps you know some of these young people—yes, young men are coming into the paramedical field too—who have an interest in the medical field. Encourage them to inquire and take a good look into the field of medical assisting. There are special courses available now and good training programs in many of the junior colleges and area schools. Once a young person has walked through the door into the exciting world of medicine, he or she will have the satisfaction of selecting one of the most intellectually rewarding fields there is.

Their challenge should be to strive constantly for perfection. They should be encouraged to join the American Association of Medical Assistants, and to take advantage of the opportunities to further their education and to become certified. Refresher courses are most helpful to the busy doctors and they are likewise essential for the medical assistant who wishes to keep abreast of developments in her field. There are state and national conventions with excellent programs each year. There are study groups, programmed material to be used as a self-improvement course, seminars, symposiums and many audio-visual programs.

In addition to the Mini-Test for certification which is now available for state meetings, and which will be a part of our Iowa Convention this year, there is a program called Effective Listening which was first tested at the National Convention in Des Moines last October. This, too, is being made available for state meetings and seminars and certainly every medical assistant should be anxious to know how effectively she listens.

The ideal medical assistant is a charming and tactful receptionist with a pleasant yet business-like voice. She must be able to calm the hysterical and reassure those who are worried. She must *never* lose her temper. She must have keen intelligence and the inquiring mind of a scholar. She must also be a good secretary, typist, bookkeeper, collection agency, and, in many offices be able to assist the doctor with patients and do basic laboratory and x-ray procedures. What sort of paragon is this? She may not even exist—yet these are the goals we should strive to attain. Consider too the intangible rewards of humanitarianism and service to mankind. This is no career for anyone who is physically, emotionally or intellectually lazy!

One more brief note about our Convention in Mason City, May 14, 15, 16. We will be honored to have Mrs. Ethel Haase, CMA, a member of the Professional Advancement Committee of the American Association of Medical Assistants, as our guest. Ethel is an AAMA Trustee and has chaired the Research & Development Committee th past two years. She will speak about the certification program just prior to the Mini-Test, at 2 p.m. on Saturday, May 15. *SEE YOU IN MASON CITY*—Sheraton Inn, Hwy. 18 West.

JEANNE D. GREEN

Component Chapter Officers—1971-1972

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Officers for Mason City, Des Moines and Davenport were published in the February JOURNAL.

THE DOCTOR'S BUSINESS

Patient Education Is Good Public Relations

LARRY E. LEAVERTON
Des Moines

With time at a premium in medical offices, most physicians are seeking additional ways to save valuable time while preserving the quality of care. This can be done by efficient office operation, by delegation of duties to well trained assistants and through a well equipped office arranged for a smooth flow of patients.

One additional way of saving time not fully utilized in many offices involves use of the printed word or illustration to supplement verbal instructions or directions given the patient. This is not only a timesaver but it is good public relations, and it is informative and welcomed by the patients.

Public opinion surveys frequently show patient concern because the physician is so rushed he doesn't appear to have time to answer questions or properly explain in understandable terms his diagnosis or plan of treatment. Or, the explanation is so vague or the instructions are so confusing they are forgotten. Because the same instructions for the same problems are repeated many times in the course of a day effective communication suffers from repetition.

Today there is available much written information designed (1) to increase the patient's knowledge, and (2) to supplement the physician's specific instructions. The most common source of informational material is the American Medical Association which has booklets, pamphlets and posters on health education topics from A to Z, plus a convenient rack on which to display them. You have a captive audience in your reception room. Why force them to read magazines when they could be reading health related articles? A complete publications list can be ordered from: Order Section, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610. There are other sources of written material or visual aids. All such aids should of course be screened to be certain the content agrees with your intended use. They will not replace your individual specific instructions. They will simply supplement them. Some offices are designing their own forms on various subjects to be printed inexpensively by commercial firms located in any city.

Some of the most common applications of printed information are in pediatrics and obstetrics. This could be expanded to many other areas and other medical problems. Doctors have been told in numerous articles many are not experts in sex education and drug abuse. Why not then keep a supply of good books and pamphlets on hand or recommend specific reading material?

Other topics for printed explanations include instructions for hospital admissions, office policies regarding insurance forms, Medicare, Medicaid, office hours and where to call in emergencies.

Opponents of printed material contend it can be misinterpreted or it will tell the patient "too much." These physician critics in most cases underestimate the interest of the public in health related material and also the knowledge and sophistication of their patients. It must always be emphasized that this material will not replace the personal consultation but will bolster and supplement it. The present day medically educated patient is interested in learning more about his problems. The patient has more time to learn than the physician has to teach.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

Iowa Medicaid Expenditures

Most recent monthly report (January) for Iowa Medicaid released by the Department of Social Services shows the medical doctors received $358,130 or 21.5 per cent of the total expenditure. Medical doctors recorded 23,255 claims for 17,852 recipients. The average cost per claim was $15.40.

In-patient hospital care took 30.1 per cent ($500,967) to rank as the top expenditure category.

THE JOURNAL *Book Shelf*

Book Reviews

ADVENTURES IN MEDICAL WRITING, ed. by *Robert H. Moser*, M.D., and *Erwin Di Cyan*, Ph.D. (Springfield, Ill., Charles C Thomas, Publisher, 1970. $6)

This may not be of great use if one intends the material sense. It is, however, of great interest. All six contributors are, or have been, institutionally connected. All have had ample opportunity to dissect the literary vagaries of medical writing; and all, I suspect, are frustrated literati. This is not meant to be demeaning, as it fits the normal framework of the physician's subconscious drives.

It is a difficult task they pose for the medical writer. Medical exposition must be lucid, as simple as possible, fairly complete in detail and interesting. There's the rub—interesting! Robert Moses says: "Read the classic authors; avoid the contemporary trash and explore the Great Ones." This is good preparation for any literary effort, though there could be debate regarding trash on the contemporary scene. What he doesn't tell you is how to put into medical writing that touch of fancy, that soaring abstraction of creative literature which could be anathema to medical exposition.

Erwin Di Cyan speaks of "the tone" of medical writing, coming close to the core of the problem. Professor William Bean is erudite, as usual, with his inimitable mixture of pedantic and somewhat rambling styles. Walter Alvarez is easy to read and most helpful technically, somewhat like his newspaper column. Charles Aring gives his writing hints in short, rather disconnected paragraphs.

This little book won't increase your income. Neither will it substitute for a good detective story. But take it to bed with you and it will help you relax, and that's important too.—*Bernard Diamond*, M.D.

THE IMMUNOLOGY OF MALIGNANT DISEASE, by *Jules E. Harris*, M.D., and *Joseph O. Sinkovics*, M.D. (St. Louis, C. V. Mosby Company, 1970. $15)

This is an excellent book about the interrelationships of malignancy, immunology and chemotherapy. The authors begin with a succinct, yet thorough exposition of the various immune responses of adaptive immunity, a brief description of how the clinician can measure these various immune responses in the patient, and a discussion of the role of these immune responses in the host defense against malignancy.

The second chapter reviews pertinent data from animal experimentation which indicate (1) immune responses play a role in host defense against tumor formation, (2) why antitumor immune responses sometimes fail in this defense of the host, and (3) the possible value of immunotherapy in the treatment of cancer.

The third chapter is a documentation of the association of immune deficiency states with human malignant diseases with special emphasis on blood cell disorders. The fourth chapter discusses the immunosuppressive effect of anticancer drugs. The last chapter discusses the various possible etiological agents of human cancer, the evidence for host immune responses to human tumor cells, and the similarities between the immunology of experimental tumors and malignant disease in man. The book closes with a presentation of different attempts to treat malignancy by means of various immunotherapeutic approaches.

Although this little book suffers from a certain complexity of syntax which makes reading certain passages a bit of a trial, the authors have succeeded admirably in presenting their case with a fullness of data, both experimental and clinical. The book has an exhaustive bibliography and a presentation that effectively collects the broad and sometimes confusing array of substantiated data in an orderly manner. All clinicians interested in the treatment of cancer will profit from reading this book.—*G. R. Fitzgerald*, Ph.D.

ESSENTIALS OF CLINICAL ENDOCRINOLOGY, by *Norman G. Schneeberg*, M.D. (St. Louis, C. V. Mosby Company, 1970. $22.50)

This is an excellent book dealing with the essentials of clinical endocrinology. The author states in the preface that the increasing body of endocrinology flows like a river, ever widening and becoming more voluminous as it progresses. This is extremely pertinent in this day and age. Many textbooks on endocrinology are too deep for the average practitioner.

This textbook deals with the subject very well so the practitioner who has only a working knowledge of the disorders will benefit from the material presented. The presentation of each of the different forms of endocrine disorders is very good. The tables are excellent. Each of the endocrine organs are discussed in a workable detail so one may develop an understanding of each. If necessary, the research man will have to use this as a working basis and go to other textbooks for further details.

The author also adds a concluding chapter dealing with disorders probably not of endocrine origin, but of interest to the endocrinologist. This chapter covers such things as obesity, progeria, Werner's syndrome, Marfan's syndrome and Lawrence-Moon-Biedel syndrome.

I highly recommend this book for those people interested in endocrinology and those who desire to learn more.—*Edward J. Hertko*, M.D.

THE EARLY ORTHOPAEDIC SURGEONS OF AMERICA, by *Alfred Rives Shands, Jr.*, M.D. (St. Louis, C. V. Mosby Company, 1970. $15).

Shands is recognized as an authority on the history of orthopaedic surgery in America. This book supplements Bick's SOURCE BOOKS OF ORTHOPAEDICS and Mayer's ORTHOPAEDIC SURGERY IN THE UNITED STATES OF AMERICA by presenting biographies of 11 founding fathers of American orthopaedic surgery. These 11 orthopaedists practiced for the most part on the east coast, principally in New York and Boston during the later part of the 19th century.

This book would not be of interest to the average physician. It is a specialized book which documents the development of the buckle and strap era of orthopaedics into modern orthopaedic surgery.—*John H. Kelley*, M.D.

Books Received

PROGRESS IN NEUROLOGY AND PSYCHIATRY, VOLUME XXV, ed. by *E. A. Spiegel*, M.D. (New York, Grune & Stratton, Inc., 1970, $28.75).

SELECTIVE BIBLIOGRAPHY OF ORTHOPAEDIC SURGERY, Second Edition, by American Academy of Orthopaedic Surgery. (St. Louis, C. V. Mosby Company, 1970, $7.25).

BECKER-SHAFFER'S DIAGNOSIS AND THERAPY OF THE GLAUCOMAS, Third Edition, ed. by *Allan E. Kolker*, M.D., and *John Hetherington, Jr.*, M.D. (St. Louis, C. V. Mosby Company, 1970, $25.00).

AN INTRODUCTION TO NEUROSURGERY, Second Edition, by *W. Bryan Jennett*, M.D., F.R.C.S. (St. Louis, C. V. Mosby Company, 1970, $13.50).

SURGICAL ANATOMY, VOLUMES I AND II, Fifth Edition, by *Barry J. Anson*, M.A., Ph.D., and *Chester B. McVay*, Ph.D., M.D., F.A.C.S. (Philadelphia, W. B. Saunders Company, 1971, $45.00).

THE LOW FAT LOW CHOLESTEROL DIET, Second Edition, by *Clara-Beth Young Bond*, R.D., *E. Virginia Dobbin*, R.D., *Helen F. Gofman*, M.D., *Helen C. Jones*, and *Lenore Lyon*. (New York, Doubleday & Company, Inc., 1971, $7.95).

MEDICAL MEETINGS

(Continued from page 266)

May 9-12 **Annual Meeting Kansas Medical Society**, Ramada Hotel, Topeka.

May 9-12 **Neurosurgical Society of America**, The Cloisters, Sea Island, Georgia.

May 10-14 **Postgraduate Course on Intensive Care Units sponsored by American College of Physicians, St. Vincent's Hospital and Medical Center of New York**, New York.

May 11-13 **Annual Meeting State Medical Society of Wisconsin**, Pfister Hotel, Milwaukee.

May 12-13 **Postgraduate Course on Practical Dermatology sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

May 13-14 **Postgraduate Course on Oral Surgery sponsored by University of Nebraska Medical Center**, Omaha.

May 13-15 **National Conference on Patient Safety in Hospital sponsored by American Hospital Association**, Palmer House, Chicago.

May 14 **15th Annual Symposium on Infectious Diseases sponsored by University of Kansas Medical Center**, Battenfeld Auditorium, Kansas City, Kansas.

May 14-15 **16th Annual Trauma Day sponsored by University of Nebraska Medical Center**, Omaha.

May 16-19 **Annual Meeting Illinois State Medical Society**, Arlington Park Towers, Arlington Heights.

May 16-19 **National Tuberculosis and Respiratory Disease Association**, Statler Hilton, Los Angeles.

May 16-19 **2nd National Conference on Breast Cancer sponsored by American Cancer Society**, Century Plaza Hotel, Los Angeles.

May 17-19 **Annual Meeting Minnesota State Medical Association**, Hilton Hotel, St. Paul.

May 17-20 **Symposium on Otorhinolaryngology for Non-Otorhinolaryngologists sponsored by University of Nebraska Medical Center along with Other Schools in Big Eight**, Fountainhead State Lodge, Eufaula, Oklahoma.

May 19-20 **Symposium on Contact Lens sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

May 19-21 **Postgraduate Course on Immunologic Concepts of Hypersensitivity in Man sponsored by American College of Physicians**, State University of New York, Buffalo.

May 20-22 **Pulmonary Thromboembolism—1971 sponsored by University of California School of Medicine, San Diego and American College of Chest Physicians**, San Diego.

May 23-25 **American Academy of Facial Plastic and Reconstructive Surgery**, Hilton Hotel, San Francisco.

May 24-25 **American Ophthalmological Society**, The Homestead, Hot Springs, Virginia.

May 24-28 **Postgraduate Course on Clinical Endocrinology sponsored by American College of Physicians**, University of Michigan Medical Center, Ann Arbor.

May 24-28 **Postgraduate Course on Clinical Endocrinology —Physiological Basis for Current Diagnostic and Therapeutic Procedures sponsored by American College of Physicians**, University of Michigan Medical Center, Ann Arbor.

May 26-28 **Postgraduate Course on Clinical Auscultation of Heart sponsored by American College of Physicians**, Georgetown University Hospital, Washington, D. C.

June 1-4 **Postgraduate Course on Selected Topics in Pathophysiology of Clinical Gastroenterology sponsored by American College of Physicians, University of California**, San Francisco Medical Center, San Francisco.

June 7-11 **56th Annual Convention of Catholic Hospital Association**, Atlantic City.

June 7-11 **Postgraduate Course on Internal Medicine sponsored by American College of Physicians**, University of Cincinnati Medical Center, Cincinnati.

June 10-11 **Postgraduate Course in Dietetics sponsored by Cleveland Clinic Educational Foundation**, Cleveland.

June 14-16 **American Neurological Association**, Shoreham Hotel, Washington, D. C.

June 20-24 **American Medical Association**, Chalfonte-Haddon Hall, Atlantic City.

June 21-26 **17th Annual General Practice Review sponsored by University of Colorado School of Medicine**, Estes Park, Colorado.

June 22-23 **Annual Meeting American Diabetes Association**, Sheraton-Palace Hotel, San Francisco.

ABROAD

June 28-July 2 **Postgraduate Course on Advances in Internal Medicine sponsored by American College of Physicians**, Banff School of Fine Arts, Banff, Alberta, Canada.

Woman's Auxiliary News

MEET YOUR NEW PRESIDENT—RUTH TENNEY

AUXILIARY ACTIVITIES: Buchanan County President, 2 years; Recording Secretary, First Vice President, Second Vice-President for the State Auxiliary.

Ruth is a native of Champaign, Illinois, and was graduated from the University of Illinois in 1944 with the bachelor of science degree in Nutrition and Dietetics. She worked in the test kitchen of Libby, McNeill and Libby and was a dietitian at Presbyterian Hospital in Chicago while her husband was in medical school. Ruth calls the seven years her husband was in solo practice in Montana "a most rewarding and challenging time of our lives."

A tour of duty in the Army was followed by residencies in pathology, neurology and psychiatry. At the time of her husband's death, one year ago, he was a neuro-psychiatrist at the Mental Health Institute in Independence.

Ruth is presently taking refresher courses and expects to be employed as a Therapeutic Dietitian at the Mental Health Institute.

A son, Tom, is married, has one daughter and is a salesman living in Des Moines. Daugher Pam is a sophomore at Upper Iowa University and is majoring in Physical Education. Young Phil is a freshman in high school.

"YOU Reflect the Medical Profession"

As we anticipate the carefree days of summer let us remember that Auxiliary membership does not start with the September meeting and end with the one in May. We can be gathering program ideas, recruiting new members, and we can serve constantly as ambassadors of good will to the public in behalf of the medical profession.

As you are planning for programs and projects for the coming year, I hope that you will again stress the importance of supporting the AMA-ERF program. We have been asked to contribute a minimum of $10 per member. Many of us do this and more. State legislators are cutting back assistance to medical schools everywhere. The Medico programs often make it impossible for students to work summers, so our help as supporters of ERF is urgently needed. This is one way we can help meet the critical need for physicians. Let's carry our needs to each of our communities. Encourage your local community groups to assist and to be involved in this important aspect of medicine. We must support our medical schools with our talents and dollars to aid them with their ever increasing financial problems.

Through our enthusiastic response to the Yucatan need, our International Health project got off to a flying start this past year. The letters of gratitude and thanksgiving were many. Our supplies have reached a part of the world which is medically underprivileged. Our goal to help our less fortunate brothers is being realized. Whether you choose this project or one of the many other medical relief projects, I hope you will again stress the importance of aid to our fellowmen.

We are a small organization when compared to other women's groups. Yet, our aims, problems, and assignments are gigantic. We want each doctor's wife to be a working part of our Auxiliary. We must speak out about our usefulness to the medical profession—which is to help our fellowmen. By helping others we cannot help but create good will for the medical profession with the general public. Be enthusiastic and make every eligible non-member realize how much we need her in order to accomplish these goals.

I am grateful to each of you for electing me to be your president. It will be my privilege and honor to serve you during the coming year.

RUTH TENNEY

Recruit . . . Blood Donors . . . Now!!

Giving blood so that another may live is something most persons can do. Yet the annual blood supply for transfusion in this nation is provided by less than 3 per cent of the eligible donor population.

Doctors' wives can do a great deal to get the word to the public, recruit donors, become donors —and help whatever blood program exists in your community.

A kit has been prepared for state auxiliary community health chairmen to aid in promoting this effort.

"The AMA has asked auxiliaries to give priority attention to the *Blood Donor Program in 1970-71,*" reports Mrs. Linus W. Hewit, national community health chairman. "I urge every member to cooperate in order to solve the blood procurement problem in our country."

This is an important activity which deserves our interest and involvement.

Reminders . . .

Kay Kent (Mrs. Robert L.), International Health Activities, reminds Auxiliary members:

- Yucatan hospitals are in desperate need of hospital equipment, instruments, drug samples, draw sheets, pillow cases, crib sheets and Johnny coats. Mrs. R. W. Westfall, secretary, Partners of the Alliance, 925 Lincoln, Boone, Iowa has located a company that will ship the materials and equipment.
- World Relief still needs soap and leper bandages.
- Extend international hospitality by friendship with doctors and other medical personnel studying in this country.
- Save journals and other magazines for doctors' wives in foreign countries—the Doctor's Wife Program.

Let's get to know each other by working to help others!! If I can be of any help, please contact me.

Mrs. Kent's address is 18 Oak Drive, Fort Madison, 52627.

The Plus and Minus of Ecology

In the Fight Against the Pollution of Environment

ON THE PLUS SIDE

Industries are researching the development of biodegradable containers—one that dissolves quickly after use. Some soups are being packaged in envelopes that dissolve with their contents. Pepsi-Cola has developed a disposable soft drink bottle which can be burned after use.

Senator Gaylord Nelson is working for a federal law prohibiting nonreturnable bottles, cans and jars.

A trash-crusher gadget advertised at $200 plus is on the market. Sears and Whirlpool both offer the product. If it wasn't on your Christmas list, hint for one on your birthday.

Experimentation is underway to use pulverized glass and rubber in highway surfacing; it is showing good results.

Scientists are trying to develop plastics that will decompose naturally, bottles that degrade by natural biological action and cars that can be dismanteled and reused after their primary function is over.

A chemical, called NTA, is being researched at Iowa State and by Procter & Gamble which may reduce phosphorus pollution of lakes and streams. It could be a new additive to detergents and may be a real breakthrough.

Research on automobiles that would cause less pollution has developed an electric, battery operated car and a steam car which runs on kerosene. The steam car can go about 30 miles on a gallon of kerosene and as fast as 100 miles per hour. There is little pollution from it, and it is supposed to be safer, quieter and cheaper. Very few are available to date.

Alcoa's alumninum can reclamation and recycling program in San Diego, California, in September was highly successful. Other "Yes We can" projects are planned for Dallas and Fort Worth. Beer and beverage distributors are collecting used cans for delivery to metals dealers. Major shopping centers often provide collection stations. Collectors are paid 10 cents a pound, and about 20 12 oz. cans weigh one pound.

Junk cars and old tires are being dumped into the sea to form artificial reefs that not only unclutter the landscape but increase marine life as well.

A Davenport utility company has launched a three-year $2.5 million program to install an ad-

vanced antipollution device in its generating plant. The device is designed to remove 98 per cent of all particulate (dust, fly ash and fine grit) matter discharged from the plant.

A recent college poll showed 75 per cent of those interviewed said they would refuse to work for any industry they believed polluted our environment in some way.

Lake County, Michigan, has taken action to ban the sale of nonreturnable bottles and cans in an anti-litter campaign in a leading resort area there. They called it a "first step, if nothing else." The County Board approved it unanimously. If the ban is proved legal, it goes into effect April 1, with the maximum penalty for violation being a $100 fine and 90 days in jail. Are any of *your* cities, towns or counties considering such a ban? Do you belong to a group that is pushing this sort of thing?

A new environmental protection law became effective in December which makes it mandatory for all cars to be equipped with nonpollutant devices by 1975.

A new Presidential-appointed Environmental Protection Agency (EPA) has been formed and is headed by an able and well qualified administrator, Mr. Ruckelhaus.

ON THE MINUS SIDE

A significant amount of mercury in bald eagles in Minnesota, in pheasants in northern California, Montana and Idaho has been discovered. The presence of mercury is considered a more serious threat to health than DDT. Research shows the environment is pretty well loaded with it and it just doesn't go away.

The discovery of mercury in some canned tuna on store shelves is alarming. Only a small amount has been found to date and that is being removed. Mercury has also been found in swordfish to such a degree that it may be removed completely from markets until more research is done. Previously, mercury had just been detected in fresh water fish in the Great Lakes, northern U. S. and Canada.

For the first time, DDT has been found in deep sea fish.

There is concern over the effect of pollutants in the soil on many of our food products. Many people are turning to natural foods organically grown. Health food stores are becoming popular.

People are complaining about the possible increase in costs of products after anti-pollutant practices are followed or devices developed and installed. They worry about the possibility of higher taxes to pay for stronger and more expensive government anti-pollution programs.

MILDRED LEINBACH (MRS. S. P.) and
MAE WEIS (MRS. HOWARD)
Chairman and Co-Chairman of
Rural Health and Ecology

Here's Help for You . . .

Yours for the asking are the following booklets:

FACT FOLDER. Revised in August, this handy green-and-turquoise folder tells concisely what the AMA Woman's Auxiliary is and does. Auxiliaries can order in quantity for membership promotion and public relations purposes. It's free!

LEADERS' HANDBOOK. For only $1 you can learn all (almost!) you need to know about the history, stucture, policies and programs of the AMA Woman's Auxiliary. Indispensable for every officer and chairman.

Order from Miss Hazel Lewis, AMA Woman's Auxiliary, 535 N. Dearborn St., Chicago, Ill. 60610.

Express your opinion about the Auxiliary and what you might like to see in print!

The following letter was sent to the Governor by a young student: "Dear Mr. Ray, What if we pay taxes and get poor? Then we get our money back. I don't get it!"

A Requested Recipe

This is the recipe many of you requested for the cake Evelyn Mintzer brought to the January Board meeting.

Sour Cream Coffee Cake

Bundt pan ..... 350 degrees ..... 45 minutes
8″ square ..... 350 degrees ..... 30 minutes
Muffins ..... 350 degrees ..... 15-18 minutes

Cream: 1½ sticks butter or margarine with 1½ cups sugar.
Add: 3 eggs one at a time
Sift: 3 cups flour, 3 tsp. baking powder, ¾ tsp. baking soda and pinch of salt with butter or ¼ tsp. salt with margarine.
Add flour mixture and 1½ carton sour cream to creamed mixture.
Add: 1½ tsp. vanilla

Topping and Filling

½ cup sugar
2-3 tsp. cinnamon
chopped nuts

Thin layer of batter, sprinkle with topping, next layer of batter and sprinkle with topping. Dot with butter.

A Prayer

LORD, Thou knowest better than I know myself that I am growing older, and will some day be old.

KEEP ME from getting talkative and, particularly, from the habit of thinking I must say something on every subject and on every occasion.

RELEASE ME from craving to try to straighten out everybody's affairs.

MAKE ME THOUGHTFUL, but not moody, helpful but not bossy. With my vast store of wisdom it seems a pity not to use it all—but Thou knowest Lord that I want a few friends at the end.

KEEP MY MIND FREE from the recital of endless details—give me wings to get to the point.

SEAL MY LIPS on my aches and pains—they are increasing and my love of rehearsing them is becoming sweeter as the years go by.

I ASK FOR GRACE enough to listen to the tales of other's pains. Help me to endure them with patience.

TEACH ME the glorious lesson that occasionally it is possible that I may be mistaken.

KEEP ME REASONABLE, sweet. I do not want to be a saint—some of them are so hard to live with, but a sour old human is one of the crowning works of the devil.

HELP ME extract all possible fun out of life. There are so many funny things around us, and I don't want to miss any of them. AMEN

AMA-ERF Fund Raising Projects

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or

Woman's Auxiliary Office
1001 Grand Avenue
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Health Careers

IT IS A FACT:

- That the HEALTH MANPOWER SHORTAGE is acute in the United States!
- That the HEALTH INDUSTRY will be the nation's largest industry by 1975!
- That the need for ALLIED HEALTH PERSONNEL has expanded from one supportive person for each physician to 20 to one!
- That there are over 200 HEALTH RELATED OCCUPATIONS to choose from!

Taken from THE GOPHER DOCTOR'S WIFE

We Hope You Will Be There . . .

The forty-eighth annual convention of the Woman's Auxiliary to the American Medical Association will occur in Atlantic City, June 20-24, 1971, with headquarters at the Traymore Hotel. Registration will start Sunday, June 20, at 11 a.m. and continue until 1 p.m. Wednesday, June 23.

Mrs. R. C. L. Robertson, president, and Mrs. G. Prentiss Lee, president-elect, will be honored at a reception from 5 to 7 p.m. at the Traymore Hotel. Members, husbands and guests are cordially invited. There will be a "dutch treat" bar and hors d'oeuvre table, the latter compliments of the National Auxiliary.

The annual luncheon of the Auxiliary will be Monday, June 21, and will honor the AMA officers, trustees and wives. Walter C. Bornemeier, M.D., president of the American Medical Association, will be guest speaker. The Auxiliary's annual contribution to AMA-ERF will be presented at this luncheon.

The national past presidents, honorary members and state presidents will be honored at the luncheon on Tuesday. The guest speaker will be The Honorable Patricia Reilly Hitt, Assistant Secretary, Community Field Service, Department of HEW.

PRE-TEEN AND TEENAGE CONVENTION PROGRAM

A special program has been planned for preteen and teenagers (6 to 17 years) of Auxiliary and AMA members attending the convention. This program combines the area's seaside and boardwalk activities with fascinating historic sightseeing. Pre-teens and teenagers will be in their own groups at all times and will be picked up and returned to the Traymore Hotel. Check the schedule of events planned for the groups in your May MD'S WIFE and make reservations early. The swimming pool at the Traymore Hotel will be open from 9 a.m. to 5 p.m. each day.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

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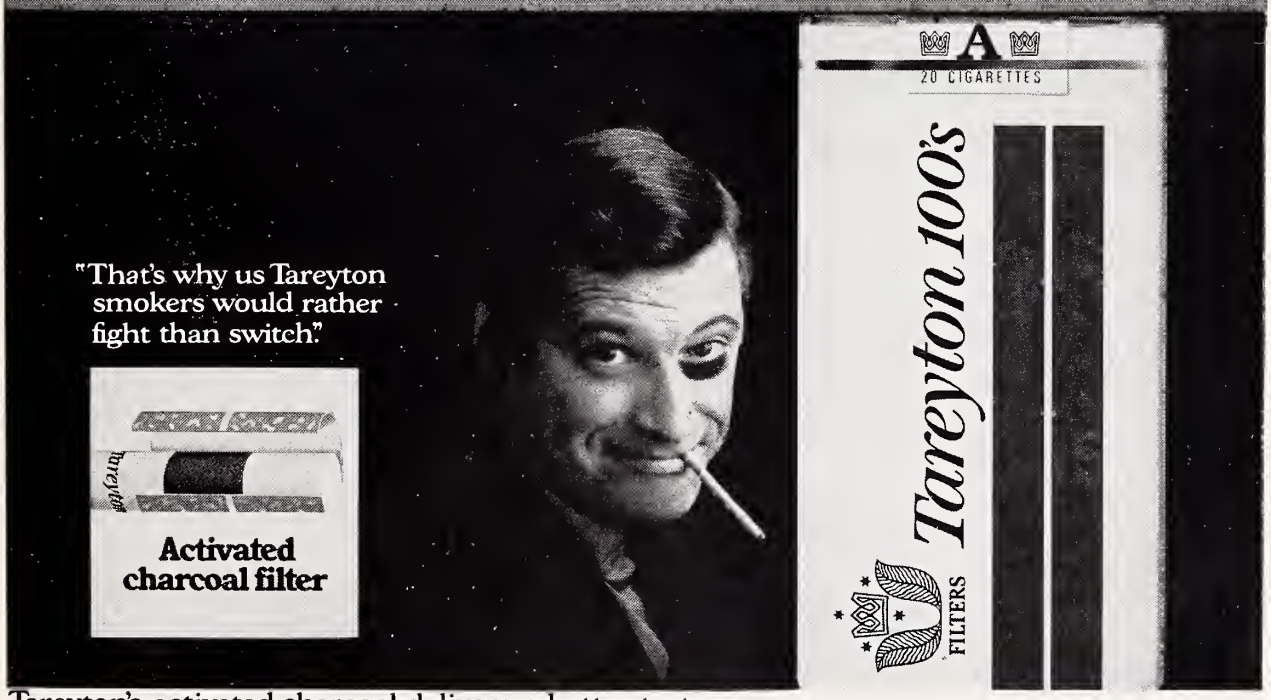

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av. per cigarette, FTC Report Nov. '70.

Personals

Dr. Arnold M. Reeve, Commissioner of Public Health in Iowa, was guest speaker at a recent meeting of the Story City Federated Women's Club. Dr. Reeve discussed geriatrics, hypertension and heart disease.

At the 7th annual meeting of the Southwest Iowa Mental Health Center, Inc., held in Atlantic, **Dr. Einer M. Juel,** of Atlantic, was re-elected president of the Board of Directors, and **Dr. John R. Hornberger,** of Manning, was re-elected to a three-year term on the Board.

Dr. M. Lee McClenahan has opened an office in Sigourney for the general practice of medicine. A native of Sigourney, Dr. McClenahan received the M.D. degree from The U. of I. College of Medicine in 1960. He served his internship in San Francisco and had practiced in San Mateo, California, before deciding to return to Iowa in September of last year.

Dr. Christian E. Radcliffe, professor in the Department of Dermatology at The U. of I. College of Medicine, was guest speaker at a recent meeting of the Anamosa Rotary Club. Dr. Radcliffe spoke on the removal of tattoos.

Dr. Kitti Kalambaheti has moved his medical practice form Osceola to Victor. A native of Thailand, Dr. Kalambaheti has been in the United States for 11 years and before coming to Iowa practiced in Sparta, Wisconsin.

Dr. Walter M. Block, a Cedar Rapids physician, is one of 100 pediatricians from throughout the country who have been organized into a committee to provide personal answers to letters written to the Growing Pains column of TODAY'S HEALTH magazine published by the American Medical Association. The letters to be answered are ones posing specific child health problems, according to the announcement by the American Academy of Pediatrics.

Dr. Belen B. Fernandez has joined **Dr. Charles Hintz** in the practice of psychiatry in Des Moines. Dr. Fernandez received her medical degree, cum laude, from the University of Santo Tomas Medical School, Manila, The Philippines, in 1965. She interned at the New York Infirmary in New York City and completed her residency in psychiatry at the Northwestern University Medical Center in Chicago. Dr. Fernandez is a member of the Iowa Chapter of the American Psychiatric Association.

Dr. William C. Keettel, professor and head of obstetrics and gynecology at The U. of I. College of Medicine, presided at a recent meeting of the Association of Professors of Gynecology and Obstetrics held in New Orleans, Louisiana. Dr. Keettel served as president of the organization this past year.

At the annual meeting of the Iowa Society for the Prevention of Blindness, **Dr. Richard McKay,** of Waterloo, **Dr. Kurt Hahn,** of Burlington, and **Drs. F. C. Blodi** and **Bruce Spivey,** of Iowa City, were elected to the board of directors. **Dr. Alson Braley,** of Iowa City, was named chairman of a new committee to study ways of reducing the number of eye injuries and cases of blindness resulting from improper use of anhydrous ammonia and farm chemicals.

Dr. Donald F. Bomkamp of Cedar Rapids, spoke on "Medical Aspects Surrounding the Crucifixion of Christ," at an interdenominational lenten luncheon held at the YMCA in Cedar Rapids.

At the recent 48th annual meeting of the American College of Radiology in St. Louis, the following Iowa physicians were cited for their outstanding work in medicine and their contributions to radiology by being named Fellows in the College

—**Dr. Thomas A. Burcham**, of Des Moines, **Dr. Charles M. Marriott**, of Sioux City, and **Dr. Maurice M. Wicklund**, of Waterloo. Dr. Burcham, a 1950 graduate of Washington University School of Medicine, is affiliated with Iowa Methodist and Broadlawns Hospitals; Dr. Marriott, a 1952 graduate of Creighton University Medical School, is affiliated with St. Luke's Medical Center, St. Vincent's Hospital and Burgess Memorial Hospital, and Dr. Wicklund, a 1943 graduate of McGill University Medical School, is affiliated with Allen Memorial, Sartori Memorial and Grundy County Memorial Hospitals.

Dr. John Schutter, of Algona, attended the recent four-day refresher course for general practitioners at Iowa City. Dr. Schutter is a Diplomate of the American Board of Family Practice.

David R. Schomburg, of Milford, has joined **Dr. R. J. Coble**, in Lake Park, as a physician's assistant. Mr. Schomburg received most of his training while in the United States Army. Following his discharge from the service, Schomburg studied for a period of time at The University of Iowa.

Dr. S. Fred Brunk, assistant professor of internal medicine at The U. of I. College of Medicine, has been named chairman of the 1971 Johnson County Cancer Crusade.

Dr. Leo Kuker, of Carroll, was elected vice-president of the American Society of Abdominal Surgeons during the organization's 12th annual scientific meeting in New Orleans.

Dr. E. J. Gottsch, who has practiced medicine in Shenandoah for more than 50 years, was honored recently at an open house.

Dr. Robert M. Bittle, assistant professor of psychiatry at The U. of I. College of Medicine, discussed "Drug Abuse in Iowa Today," at a recent joint meeting of the Wapello County Medical Society and Woman's Auxiliary in Ottumwa.

Dr. Donald L. Warkentin, a cardiologist and associate professor of internal medicine at The U. of I. College of Medicine, has been elected to a three-year term as Iowa Governor of the American College of Cardiology.

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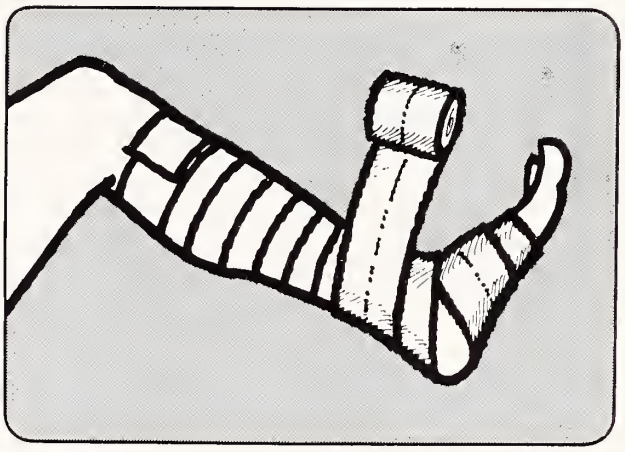

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Dr. Paul M. Seebohm, associate dean at The U. of I. College of Medicine, has been elected secretary of the council of the American Medical Association's Section of Allergy. Dr. Seebohm will serve a four-year term. In addition to arranging the scientific program for the annual meeting of the AMA, council members also help recruit program participants for inter-disciplinary sessions.

Dr. John Weibel, a former Des Moines osteopathic physician and surgeon, has joined **Drs. William J. Wolf, David A. Freed**, and **Larry Boeke** at the West Union Medical Clinic. Before coming to West Union, Dr. Weibel was an assistant professor of clinical medicine at the Des Moines College of Osteopathic Medicine and Surgery. A 1969 graduate of the college, Dr. Weibel served his internship at Des Moines General Hospital.

Dr. Reginald L. Murphy, formerly of Nebraska, has joined **Dr. Cornelius Maris** in the practice of medicine at Sanborn. Dr. Murphy is a graduate of the Creighton School of Medicine and interned at St. Joseph's Hospital in Omaha.

Dr. Paul E. Huston, professor and head of psychiatry and director of the Psychopathic Hospital at The U. of I., has been named chairman of the Joint Information Service Committee of the American Psychiatric Association and the National Association for Mental Health.

Two U. of I. faculty members, **Dr. Earl F. Rose**, associate professor of pathology, and **Dr. David L. Silber**, assistant professor of pediatrics, participated in a March television program on "Crib Deaths," produced by WHBF-TV, Rock Island, Illinois.

Dr. William Fritsch, an Iowa City dermatologist, has volunteered for service aboard the hospital ship, S.S. Hope, now in Kingston in the West Indies. Dr. Fritsch will serve a two-month tour.

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Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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Drs. Robert H. Kuhl and **James B. Gault**, of Creston, attended the 23rd annual Congress of the International Academy of Proctology held recently in Mexico City. Dr. Kuhl is a Fellow in the International Academy and was a delegate at large from Iowa to the International Convocation.

Dr. William G. Stone, of Waterloo, was a recent guest speaker at the Unitarian-Universalist Church in Iowa City. His topic was "The Third Psychiatric Revolution." Dr. Stone is director of the Black Hawk County Medical Health Center and author of the book DOES EVERYBODY NEED AN ANALYST?

Dr. H. Dabney Kerr, head of the Department of Roentgenology at The U. of I. College of Medicine from 1930-1955, received the Gold Medal Award of the American College of Radiology at their annual meeting in St. Louis. The Gold Medal is the highest award presented by the College for distinguished service in the field of radiology over a period of years. In 1955, Dr. Kerr became emeritus professor of radiology and moved to his present home in St. Michaels, Maryland, located on the eastern shore of Chesapeake Bay.

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Mailing Address: Elmwood Station, Box 6076, Omaha, Nebraska 68106

Dr. Albert Dolan, of Evansdale, and **Dr. Ross G. Randall,** of Waterloo, participated in a panel discussion on medical-legal issues at a recent meeting of the Black Hawk Chapter of the American Association of Medical Assistants in Waterloo.

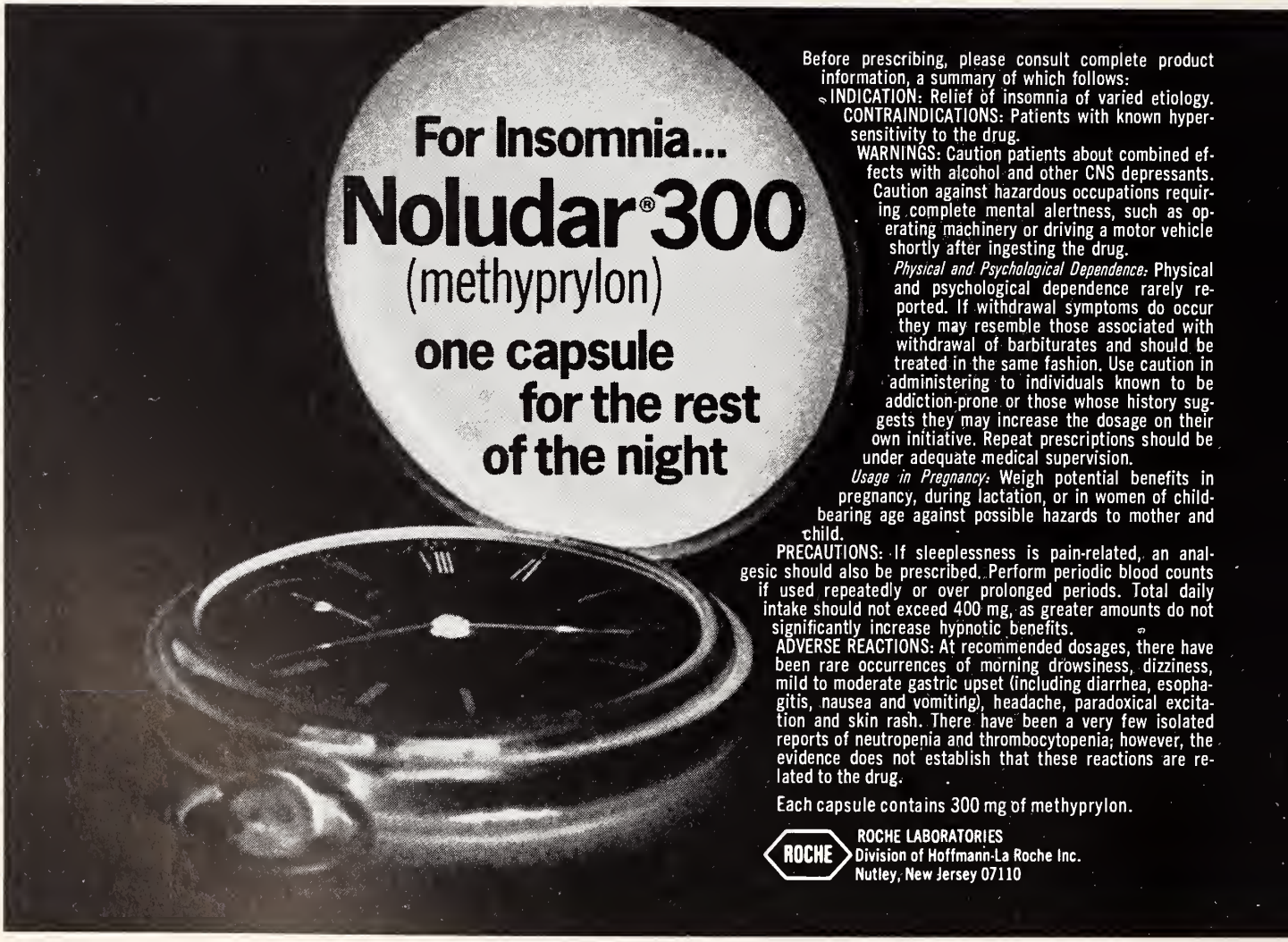
Dr. Wayne Rouse, of Boone, spoke on "Testing and Treating Respiratory Disease," at the annual meeting of the Boone County Tuberculosis and Health Association.

Dr. Wendell Johnson, an Ames ophthalmologist, was the guest speaker at a recent meeting of the Wright County Medical Society. Dr. Johnson's topic was "Common Eye Problems Seen in General Practice, Shared With the Ophthalmologist."

Dr. Robert E. Condon, professor and head of the Department of Surgery at The U. of I. College of Medicine, has been elected to membership in the American Surgical Association. Membership in the select organization is limited to 300 specialists from the United States and seven foreign nations.

Dr. Addison W. Brown, a Des Moines gynecologist, was recently presented a citation from the American Cancer Society for his efforts in educating young people about the related effects of cigarette smoking and lung cancer. Dr. Brown has been a frequent speaker to junior and senior high school groups in programs sponsored by the Polk County Chapter of the American Cancer Society.

A native of Clinton, Iowa, **Dr. Roberta Fenlon,** has been elected president of the California Medical Association. Dr. Fenlon received the M.D. degree at The U. of I. College of Medicine and served her internship and residency in internal medicine at San Francisco General Hospital. Now an internal medicine specialist in San Francisco and a faculty member at the University of California, Dr. Fenlon is the first woman elected to head a state medical society.



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CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.
WARNINGS: *Use in children:* In infants and children particularly, antihistamines in overdosage may produce convulsions and death.
PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants such as alcohol, hypnotics, sedatives, tranquilizers, etc.
ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.
HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

Dr. Bruce Beckord, a native of Rolfe, has assumed a locum tenens position at the office of **Dr. James P. Slattery** in Pocahontas while Dr. Slattery is a patient at Mercy Hospital in Fort Dodge. Dr. Beckord received the M.D. degree at The U. of I. College of Medicine in 1969 and served his internship at Sacramento County Hospital in Sacramento, California.

Drs. Richard Sedlacek and **Carl Aschoff** represented the Linn County Medical Society in an education project of the Linn County Cancer Society "to reach people where they work." The two Cedar Rapids physicians participated in a program featuring films on cancer presented to employees of Sears Roebuck and Iowa National Mutual Insurance Company in Cedar Rapids.

Dr. Richard M. Caplan, assistant dean for Continuing Medical Education at The U. of I. College of Medicine, has been appointed to a new national "peer review" committee in the medical specialty of dermatology. Dr. Caplan was one of eight physicians in the nation named to the committee which will consider ways to improve health care and assess the quality of health care delivery in the area of dermatology. The committee was established by the American Academy of Dermatology.

Dr. John Huston, Jr., a Cedar Rapids physician, was guest speaker at the Cedar County Farm Bureau rural women's day. Dr. Huston told of his experiences aboard the S.S. Hope.

Dr. Kerry L. Jensen returned to private medical practice in Clinton on April 5 following completion of his military obligation. Dr. Jensen is a member of the family practice staff at Medical Associates where he practiced three years before entering military service in 1969.

Dr. John Martin, of Clarinda, was the guest speaker at a recent meeting of the Iowa Western Community College Social Science Club. Dr. Martin discussed a doctor's view of death.

Dr. William B. Bean, Sir William Osler Professor of Internal Medicine at The U. of I. College of Medicine, was a visiting professor recently at St. Joseph's Hospital in Houston, Texas. Dr. Bean participated in medical grand rounds during his visit, presented two medical lectures and gave three formal talks.

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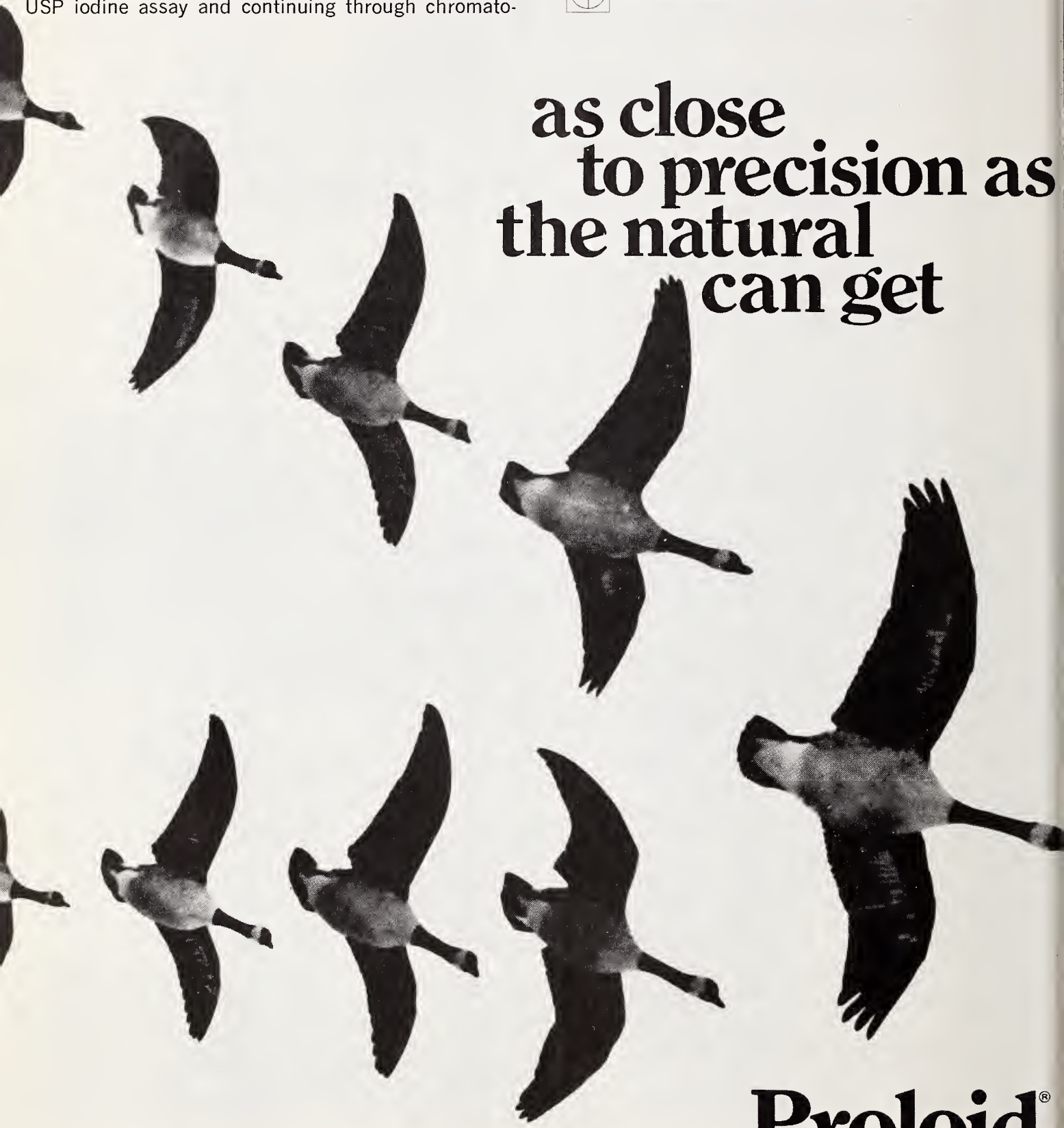

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Description: Proloid (thyroglobulin) is obtained from a purified extract of frozen hog thyroid. It contains the known calorigenically active components, sodium levothyroxine (T_4) and sodium liothyronine (T_3). Proloid (thyroglobulin) conforms to the primary USP specifications for desiccated thyroid—for iodine based on chemical assay—and is also biologically assayed and standardized in animals.

Chromatographic analysis to standardize the sodium levothyroxine and sodium liothyronine content of Proloid (thyroglobulin) is routinely employed.

The ratio of T_4 and T_3 in Proloid (thyroglobulin) is approximately 2.5 to 1.

Proloid (thyroglobulin) is stable when stored at usual room temperature.

Indications: Proloid (thyroglobulin) is thyroid replacement therapy for conditions of inadequate endogenous thyroid production: e.g., cretinism and myxedema. Replacement therapy will be effective only in manifestations of hypothyroidism.

In simple (nontoxic) goiter, Proloid (thyroglobulin) may be tried therapeutically, in nonemergency situations, in an attempt to reduce the size of such goiters.

Contraindication: Thyroid preparations are contraindicated in the presence of uncorrected adrenal insufficiency.

Warnings: Thyroglobulin should not be used in the presence of cardiovascular disease unless thyroid-replacement therapy is clearly indicated. If the latter exists, low doses should be instituted beginning at 0.5 to 1.0 grain (32 to 64 mg) and increased by the same amount in increments at two-week intervals. This demands careful clinical judgment.

Morphologic hypogonadism and nephroses should be ruled out before the drug is administered. If hypopituitarism is present, the adrenal deficiency must be corrected prior to starting the drug.

Myxedematous patients are very sensitive to thyroid, and dosage should be started at a very low level and increased gradually.

Precaution: As with all thyroid preparations this drug will alter results of thyroid function tests.

Adverse Reactions: Overdosage or too rapid increase in dosage may result in signs and symptoms of hyperthyroidism, such as menstrual irregularities, nervousness, cardiac arrhythmias, and angina pectoris.

Dosage and Administration: Optimal dosage is usually determined by the patient's clinical response. Confirmatory tests include BMR, T_3 ^{131}I resin sponge uptake, T_3 ^{131}I red cell uptake, Thyro Binding Index (TBI), and Achilles Tendon Reflex Test. Clinical experience has shown that a normal PBI (3.5-8 mcg/100 ml) will be obtained in patients made clinically euthyroid when the content of T_4 and T_3 is adequate. Dosage should be started in small amounts and increased gradually with increments at intervals of one to two weeks. Usual maintenance dose is 0.5 to 3.0 grains (32 to 190 mg) daily.

Instructions for Use: The following conversion table lists the approximate equivalents of other thyroid preparations to Proloid (thyroglobulin) when changing medication from desiccated thyroid, T_4 (sodium levothyroxine), T_3 (sodium liothyronine), or T_4/T_3 (liotrix).

Dose of Proloid (thyroglobulin)	Dose of desiccated thyroid	Dose of T_4 (sodium levothyroxine)	Dose of T_3 (sodium liothyronine)	Dose of liotrix (T_4/T_3)
1 grain	1 grain	0.1 mg	25 mcg	#1 (60 mcg/15 mcg)
2 grains	2 grains	0.2 mg	50 mcg	#2 (120 mcg/30 mcg)
3 grains	3 grains	0.3 mg	75 mcg	#3 (180 mcg/45 mcg)
4 grains	4 grains	0.4 mg	100 mcg	
5 grains	5 grains	0.5 mg	125 mcg	

In changing from Thyroid USP to Proloid (thyroglobulin), substitute the equivalent dose of Proloid (thyroglobulin). Each patient may still require fine adjustment of dosage because the equivalents are only estimates.

Overdosage Symptoms: Headache, instability, nervousness, sweating, tachycardia, with unusual bowel motility. Angina pectoris or congestive heart failure may be induced or aggravated. Shock may develop. Massive overdosage may result in symptoms resembling thyroid storm. Chronic excessive dosage will produce the signs and symptoms of hyperthyroidism.

(Treatment: In shock, supportive measures should be utilized. Treatment of unrecognized adrenal insufficiency should be considered.)

How Supplied: ¼ grain; ½ grain; scored 1 grain; 1½ grain; 3 grain; and scored 5 grain tablets, in bottles of 100 & 1000; and scored 2 grain tablets in bottles of 100.

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The Black Hawk County Medical Society and the WATERLOO DAILY COURIER recently co-sponsored a two-session dialogue between the public and the medical profession. The first panel discussion April 15, aimed primarily at young people, was titled, "Generation Gap Rap." **Dr. Craig Ellyson,** of Waterloo, was the moderator and **Drs. Philip Hastings, Jean LePoidevin, Albert Dolan** and **John Blumgren** served as panelists. The second seminar to be held on May 20 entitled, "The Doctor's Bag—That Pain in Your Pocketbook" will attempt to explain the reasons for soaring medical and hospital costs. **Dr. Charles Waterbury,** of Waterloo, will be the moderator and **Drs. C. W. Seibert, T. L. Trunnell,** and **Gilbert Clark** will serve as panelists. All participating physicians practice medicine in Waterloo.

Dr. Howard B. Latourette, head of the Department of Radiology at The U. of I. College of Medicine, was guest speaker at the North Lee County 1971 Cancer Crusade Kick-off. Dr. Latourette spoke on "The Nature and Treatment of Cancer."

Dr. R. M. Kretzschmar, of Iowa City, and **Dr. Duane Warden,** of Council Bluffs, have been named to the American Cancer Society's Iowa Division Crusade Committee.

Deaths

Dr. George B. Crow, a Burlington physician for over 50 years, died at Klein Memorial Hospital February 27. Dr. Crow began his practice of medicine at Burlington in 1914. Except for military service in World Wars I and II, Dr. Crow practiced in Burlington until failing health forced his retirement in 1966. He was a life member of the Iowa Medical Society, diplomate of the American Board of Internal Medicine and member of the American College of Physicians.

Dr. Frank O. Kershner, 91, a retired Clinton physician and surgeon, died March 2 at Jane Lamb Hospital. Dr. Kershner established his medical practice at Clinton in 1907 and retired about 25 years ago. A graduate of Northwestern University School of Medicine, Dr. Kershner interned at Wesley Memorial Hospital in Chicago, and completed postgraduate study at the University of Vienna in Austria. He was a member of the Shrine, Rotary Club and Iowa Medical Society.

Dr. K. W. Diddy, 72, who had practiced medicine in Perry since 1924, died March 2 at the Dallas County Hospital. A 1923 graduate of The U. of I. College of Medicine, Dr. Diddy was a member of the Iowa Medical Society and American Medical Association.

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GENERAL PRACTITIONER NEEDED: Practice with complete freedom of action in a rural atmosphere? Office next to pharmacy, ready for occupancy, no unseen strings. Moville, Iowa, 15 miles east of Sioux City offers just such a chance. Contact Moville Community Development Association, Inc., Moville, Iowa.

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GP-INTERNIST—desirable opportunity in growing community. Southern Wisconsin—local outstanding recreational area—fine schools. Contact: Executive Secretary, Mayville Chamber of Commerce, Box 86, Mayville, Wisconsin 53050.

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EXPANDING GROUP has openings for two internists and an ophthalmologist. Present group consists of seven general practitioners, an EENT, general surgeon, and an orthopedic surgeon. New clinic building. University town. One hour from St. Paul. Unlimited summer and winter recreation. Will finance travel for interview. For additional information call or write A. A. Drescher, M.D., or Russell Peterson, Clinic Manager, P. O. Box 337, Menomonie, Wisconsin 54751. Telephone 715-235-9671.

LOCUM TENENS WANTED during June, July or August in rural general practice 20 miles southwest of Waterloo. Salary $2,200 per month. Address your inquiry to No. 1449, Journal of the Iowa Medieal Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

EXPANDING GROUP OF INTERNISTS in Iowa's most popular and friendly city of 110,000 wish to add a fifth internist to their group. For details write J. Stuart McQuiston, M.D., 1328 2nd Avenue S. E., Cedar Rapids, Iowa 52403.

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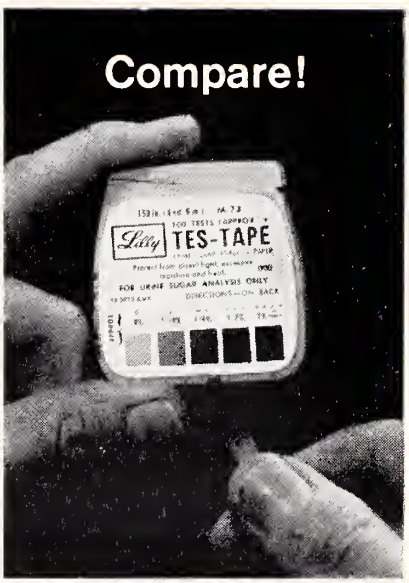

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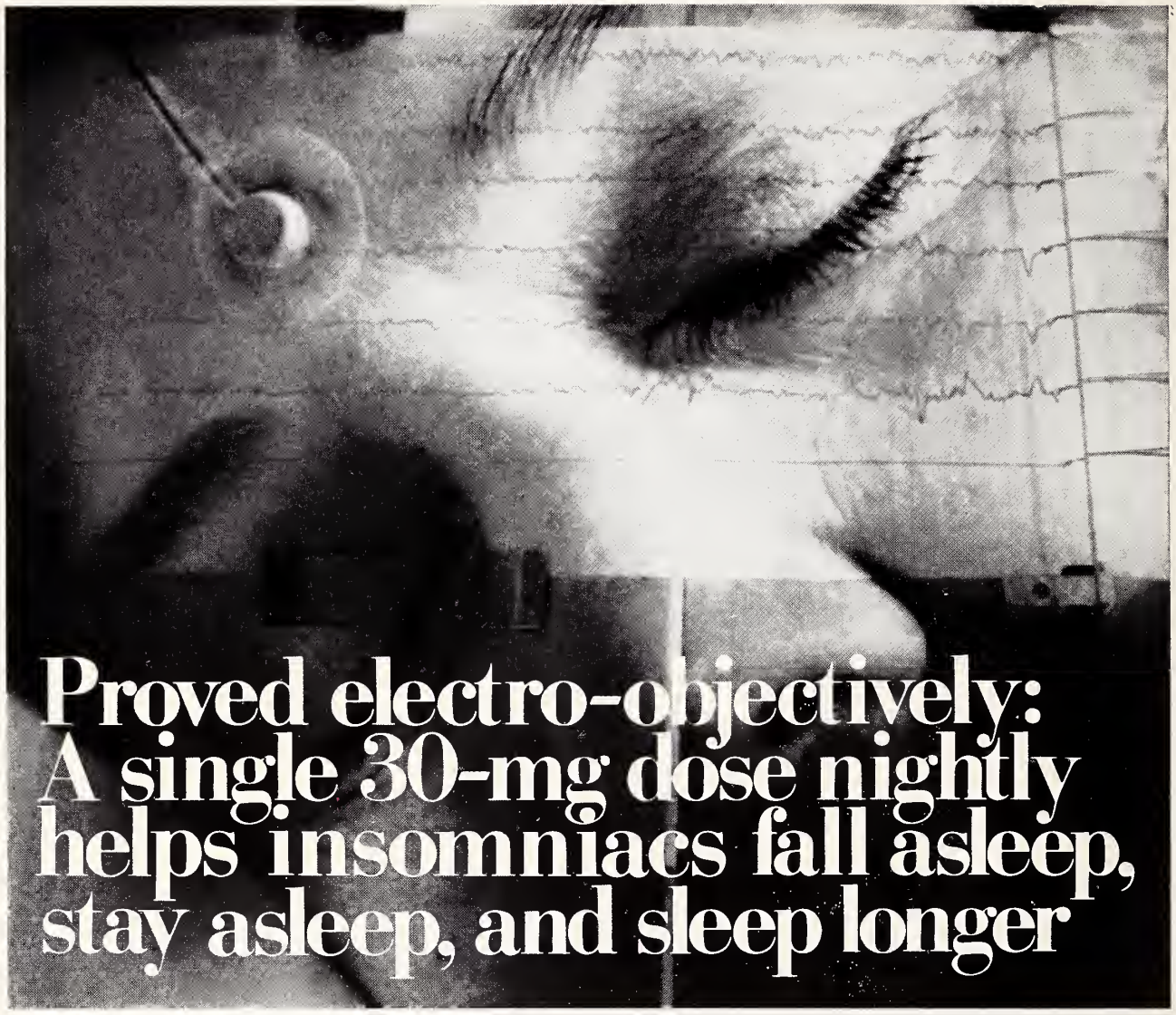

Controlled studies of 23 insomniac and 13 normal subjects treated with Dalmane (flurazepam HCl) in five sleep laboratories generated over 4000 hours of electroencephalographic, electro- oculographic and electromyographic tracings. These studies revealed that Dalmane 30 mg nightly usually induces sleep in 22 minutes and provides seven to eight hours of sleep.[1,2,3]

Moreover, Dalmane 30 mg was found to be useful in all common types of insomnia in which it was studied. Of drugs studied in a sleep laboratory,[1] Dalmane 30 mg was the only one that consistently reduced sleep induction time and maintained sleep nightly for 14 consecutive nights of use.

Confirmed clinically

Fifty-three controlled studies using a paired-night, double-blind crossover design have evaluated Dalmane clinically. In the majority of these, Dalmane (flurazepam HCl) significantly reduced sleep induction time and increased sleep duration. Dalmane and a placebo were alternated on successive nights in 2010 insomniacs, 1706 of whom were studied for a single night-pair, and the remainder for as many as fifteen paired-nights. A patient preference for Dalmane was apparent in the paired-night studies.

Dalmane was also preferred to certain hypnotics in two separate preference studies. In each of two double-blind studies, Dalmane 30 mg retained effectiveness for the total period of seven consecutive treatment nights, according to subjective/objective evaluations.

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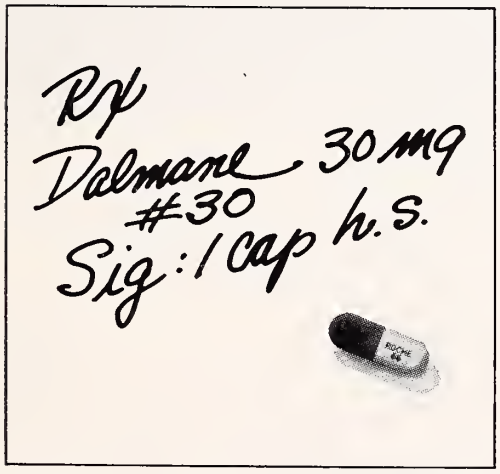
Dalmane (flurazepam HCl) is generally well tolerated

In most instances in which adverse effects with Dalmane were reported, they were mild, infrequent and seldom required discontinuation of the drug. Dizziness, drowsiness, lightheadedness and the like were the side effects most frequently noted, particularly in elderly or debilitated patients.[3] Instances of hepatic dysfunction, paradoxical reactions (excitement) and hypotension are rare with Dalmane, and morning hang-over is relatively infrequent. In studies to date the effectiveness of Dalmane for recommended periods of use is maintained without need to increase dosage.

References: 1. Kales, A., *et al.:* "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.:* "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology,* Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.,* operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.,* excitement, stimulation and hyperactivity, have also been reported in rare instances.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

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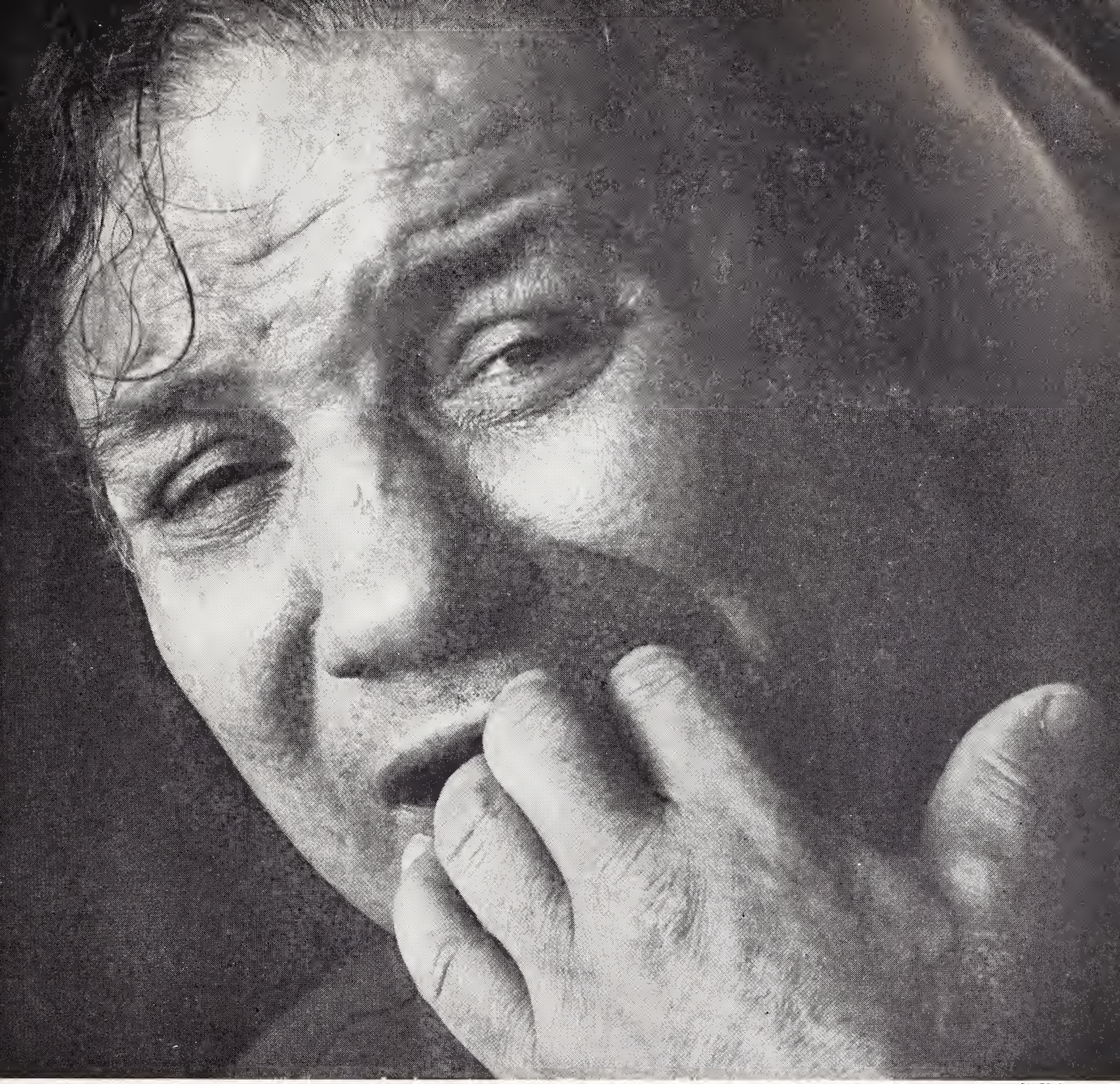

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President's Page

After reviewing the important issues confronting medicine, and after considering the socio-economics climate of the day, the Iowa Medical Society House of Delegates recently established that policy which will guide the Society in the coming months. The first order of Society business for 1971-72 will be to implement a Foundation mechanism and make it an effective and flexible working appendage.

Proposals for national health insurance will be hot topics in the U. S. Congress in the months ahead. Debate is apt to be incisive and incessant, and we hope illuminating. The medical profession must provide leadership and effective counsel as this debate goes on.

Professional liability needs to be probed. A more favorable climate must be established here. The basic problems of malpractice must be laid out and seen in reality by patients, judges, juries, lawyers and physicians. Besides medical exigencies and the broader field of health services, physicians must be actively involved in the economic and political ramifications of medicine in our day.

L. J. O'Brien M.D.

President

IOWA MEDICAL MISCELLANY

Society representatives participated May 13 in the Des Moines hearing of the U. S. Senate Subcommittee on Health. Spokesmen for Iowa medicine were K. E. Lister, M.D., Ottumwa, S. P. Leinbach, M.D., Belmond, and P. M. Seebohm, M.D., Iowa City. Dr. Seebohm represented the College of Medicine. Held at Iowa Methodist Hospital, the hearing was conducted by United States Senators Peter Dominick, Harold Hughes and Edward Kennedy. The hearing was preceded by tours of Des Moines health facilities and was followed by a briefing with local insurance and labor officials and a visit to Osceola. (Highlights from the Society's prepared statement appear in the *In the Public Interest* feature in this issue.)

• • •

Articles of Incorporation for the Iowa Foundation for Medical Care, as authorized by the IMS House of Delegates, have been filed with the Iowa Secretary of State.

• • •

The federal Controlled Substances Act of 1970 became effective May 1. Iowa physicians should be aware this law requires every person, not specifically exempted, who manufactures, distributes, prescribes, administers, or dispenses any controlled substances, to register annually with the Attorney General. This registration function has become the responsibility of the Bureau of Narcotics and Dangerous Drugs (BNDD). The new BNDD registration number is being issued in lieu of the former IRS and FDA numbers. All registrants who have applied for but have not received a BNDD number should, when necessary, indicate that "federal registration was applied for on (date)."

• • •

Senate File 239, the Comprehensive Health Care bill, is listed on the Senate calendar as this is prepared and appears likely to remain there until the General Assembly adjourns.

• • •

The Iowa Regional Medical Program expects to shift its emphasis, according to H. B. Weinberg, M.D., IRMP Coordinator. IRMP expects to step up its efforts in the area of accessibility. IRMP intends to involve itself in matters relating to quantity, variety, distribution and organization of manpower, the distribution and capabilities of facilities, transportation and costs of health care. The two-day IRMP Annual Meeting will occur in Des Moines July 9-10.

• • •

Homer Skinner, M.D., Carroll, has been reelected President of the Health Planning Council of Iowa.

• • •

1971 Hawkeye Science Fair Award Winner Kevin Cawley, of Carroll, earned the U. S. Navy Cherry Blossom Award at the International Science Fair in Kansas City during May. The award consists of $100 and an expense-paid trip to the 1972 Japanese Science Fair. Kevin's father is Paul T. Cawley, M.D., who practices in Carroll. The Iowa exhibitor also received an AMA Award of Merit and was recognized by the American College of Pathology and the National Medical Technology Association. The Hawkeye Science Fair is co-sponsored by the IMS.

• • •

The AMA Council on Environmental and Public Health has issued a new expression of concern over the growing incidence of venereal disease. The AMA statement advises "gonorrhea ranks first and syphilis third among the reportable communicable diseases in the U. S. For the year ending June 30, 1970, infectious syphilis rates were eight per cent higher nationally than a year earlier, with annual increases spread over 33 states and an estimated incidence between 70-80,000 reported cases." Gonorrhea morbidity was reported to have exceeded 573,000 cases.

• • •

Highlights of the 1971 Annual Meeting of the Iowa Medical Society House of Delegates were contained in an IMS News Bulletin distributed May 12. The complete proceedings will be carried in the July issue of THE JOURNAL. Representatives of the IMS will participate this month (June 20-24) in the Annual AMA Meeting in Atlantic City.

• • •

The University of Iowa Alumni Association has initiated a program which hopefully will stimulate more health professionals to locate in Iowa. Aimed particularly at medical students, the program will attempt to establish communications between community representatives and the students. The Physicians' Placement Service of the Society has been involved in this broad area for a number of years.

• • •

R. L. Wicks, M.D., Boone, has been elected chairman of the IMS Board of Trustees by his

(Please turn to page 330)

1971 IMS Annual Meeting

Upper left: Special Foundation for Medical Care Reference Committee, from left, D. J. Soll, M.D., Denison, J. L. Fatland, M.D., Des Moines, J. F. Bishop, M.D., Davenport, C. D. Ellyson, M.D., Waterloo, and J. E. Tyrrell, M.D., Manchester. Middle: Medical student Mark Messingham addresses the House. Right: H. R. Hirleman, M.D., Cedar Rapids, accepts Sanford Award for the late Howard Hall, also of Cedar Rapids.

Upper middle left: D. A. Treffert, M.D., Winnebago, Wisconsin, leads one seminar session. Right: Members of J. H. Sunderbruch family at the Annual Banquet.

Lower middle left: E. E. Gamet, M.D., Lamoni, left, accepts good wishes from his predecessor as chairman of the IMS Judicial Council, J. F. Bishop, M.D., Davenport. Middle: Mrs. Marion Samo displays Washington Freeman Peck Award presented Iowa State Medical Library; Mrs. Samo was specially recognized for her service as librarian. Right: 1971 IMS Merit Award Winner L. B. Sedlacek, M.D., Cedar Rapids, center, poses with S. M. Haugland, M.D., Lake Mills, IMS Alcoholism Committee chairman, and Charles Churan, executive secretary of the Iowa State Commission on Alcoholism.

Lower left: Members of Iowa Chapter, American Association of Medical Assistants, were coffee hostesses at opening session of the House. Right: J. W. Eckstein, M.D., Dean, College of Medicine, center, accepts AMA-ERF check from K. E. Lister, M.D., Ottumwa, left, and J. H. Sunderbruch, M.D.

Picture Highlights

Upper left: IMS past-presidents, from left, O. N. Glesne, M.D., Ft. Dodge, R. N. Larimer, M.D., Sioux City, W. M. Krigsten, M.D., Sioux City, C. W. Seibert, M.D., Waterloo, S. P. Leinbach, M.D., Belmond, C. V. Edwards, Sr., M.D., Council Bluffs, and R. F. Birge, M.D., Des Moines. Right: (left to right) W. R. Bliss, M.D., Ames, 1971 program chairman, U. S. Senator Jack Miller, 1970-71 IMS President J. H. Sunderbruch, M.D., Davenport and 1971-72 President L. J. O'Brien, M.D., Ft. Dodge.

Upper middle left: Dr. and Mrs. Dennis Kelly, Sr., show pleasure at his receipt of 1971 Ben T. Whitaker Teaching Award. Right: Two new IMS Councilors: K. A. Garber, M.D., Corydon, and J. F. Collins, M.D., Davenport.

Lower middle left: Program speaker E. F. Rose, M.D., Iowa City, right, with unidentified physician. Middle: Ed Kingery, recently retired Polk County executive secretary, and wife, were banquet honorees. Right: Iowa physicians learn about new equipment.

Lower left: U. of I. faculty member R. M. Caplan, M.D., right, briefs unidentified physician. Middle photos: Two new IMS Life Members: H. N. Anderson, M.D., Des Moines, and L. D. Smith, M.D., Des Moines. Right: (Left to right) Homer Skinner, M.D., Carroll, R. C. Larimer, M.D., Sioux City, and C. D. Ellyson, M.D., Waterloo.

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Iowa Medical Miscellany

(Continued from page 327)

colleagues on the Board. E. E. Gamet, M.D., Lamoni, and J. E. Tyrrell, M.D., Manchester, have been selected chairman and secretary of the Judicial Council.

• • •

Thirty-eight 1971 U. of I. medical graduates will intern in the State of California. Nineteen, the second highest number, will intern in Iowa. Other states where Iowans will intern include Minnesota (9), Ohio (8), Michigan (6), Indiana (5), Arizona (5), Oregon (5), Washington (4), Pennsylvania (4), Wisconsin (3), New York (2), Hawaii (2), Texas (2), Louisiana (2) and Missouri (2). One graduate is going to each of the following: New Hampshire, Maryland, Nebraska, Tennessee, Rhode Island, South Dakota, Vermont, New Mexico and the Canal Zone.

• • •

Elmer Smith, M.D., medical director, State Department of Social Services, sustained a fractured hip in a fall during mid-May.

• • •

Robert E. Hodges, M.D., professor of internal medicine at The U. of I. College of Medicine, has been named co-recipient of the 1971 Joseph Goldberger Award in Clinical Nutrition. The award will be presented in June at the AMA Annual Meeting at which Dr. Hodges will present a Goldberger Lecture.

• • •

The Linn, Dubuque, Mahaska and Shelby county medical societies have viewed the new IMS audio-visual presentation on the Society program. The presentation is available to all county societies and may be obtained by contacting IMS Headquarters.

Red Oak Physician Wins 1971 Golf Crown

Dr. S. Rodmond Smith, of Red Oak, shot a 76 to win the 1971 IMS Golf cup provided by the Whylie-Farrell Optical Company of Des Moines. The IMS Golf Tournament is held each year during the annual meeting of the Society. Dr. Smith's closest competitor and the winner of the tournament the past two years, Dr. John J. Polich, of Des Moines, placed second with a 78. Dr. Joseph L. Kehoe, of Davenport, came in third with an 86, and Dr. Robert Stickler, of Des Moines, took fourth with an 87.

The following physicians also participated—C. P. Addison, of Waterloo, Abraham Wolf, of Des Moines, E. L. Croxdale, of Villisca, Ellis Duncan, of Fremont, J. H. McNamee, of Des Moines, H. J. McCoy, of Des Moines, Glen Nielsen of Des Moines, C. A. Sones, of Des Moines, A. F. Grandinetti, of Oelwein and L. L. Zager, of Waterloo.

Dr. Harold J. McCoy, of Des Moines, who serves as tournament co-ordinator, has done a splendid job of arranging this annual event. Dr. McCoy invites physicians to plan now to participate in 1972.

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Scientific Articles

The Infant With Severe Congenital Heart Disease

ZUHDI LABABIDI, M.D.
D. A. EHMKE, M.D.
ROBERT E. DURNIN, M.D.
J. L. EHRENHAFT, M.D., and
RONALD M. LAUER, M.D.
Iowa City

THE MORTALITY AMONG PATIENTS with congenital heart disease is highest in the first month of life. It is during this early period that the most serious of congenital cardiac deformities threaten the infant's life. It is estimated that one-quarter to one-third of all infants born alive with congenital heart disease die before the end of the first month of life.[1, 2, 3] Of the 7,000 infants with congenital heart disease who die within the first month of life in the United States each year, many have surgically amenable defects. Because it is frequently not possible in infants to establish a definitive cardiac anatomical diagnosis by clinical examination alone, urgent cardiac catheterization and selective angiocardiography are required to allow selection of patients for surgery. The purpose of this report is to describe our experience with 113 consecutive infants who have undergone such investigative studies at The University of Iowa Hospitals.

The authors are associated with the Department of Pediatrics (Section, Pediatric Cardiology) and the Division of Thoracic-Cardiovascular Surgery at The U. of I. College of Medicine.

MATERIALS AND METHODS

Five hundred and forty cardiac catheterizations in infants and children were performed at The University of Iowa Hospitals from January 1, 1968 to September 30, 1969. One hundred and thirteen of these patients (21%) were under the age of one year. A fifth of these patients were under the age of one month. All of those under one year of age were catheterized because of signs and symptoms of serious congenital heart disease characterized by systemic cyanosis, congestive heart failure or a combination of both. Their age distribution is shown in Table I. Cardiac catherization was

TABLE I

CARDIAC CATHETERIZATION
UNDER ONE YEAR OF AGE
JANUARY 1, 1968-SEPTEMBER 30, 1969

Age	Number
<1 month	50
1-3 months	28
4-6 months	19
7-12 months	16
Total	113

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF JUNE, 1971.

never denied any baby because of poor general condition.

After careful physical examinations, chest roentgenograms, and electrocardiograms had been done on all the infants, cardiac catheterization was frequently found to be necessary to establish a complete anatomical diagnosis.

All the patients were fasted for four hours prior to the catheterization. No sedation was given to infants below one month of age. A sedative (25 mg. Demerol, 6.25 mg. Phenegan and 6.25 mg. Thorazine per/cc) was given in a parenteral dose of 1 cc. per 20 pounds to those over one month of age. Half of this dose was given to cyanotic patients and patients with severe congestive heart failure. No patient received general anesthesia.

During the procedure, body temperature was measured with a rectal probe and controlled with hot water bags. Arterial or venous pCO_2 and pH were frequently measured. Metabolic acidosis was corrected when necessary with sodium bicarbonate throughout the procedure.

Most of the patients had cutdowns in the right groin for insertion of the catheters; 11 had percutaneous insertion of catheters. Right heart catheterization was performed through the long saphenous or deep femoral vein. The left side of the heart was often entered through an interatrial communication, a ventricular septal defect or patent ductus arteriosus. Frequently the femoral artery was used for retrograde left ventricular catheterization. The vein and artery were repaired with 6-0 suture at the end of the procedure. We did not catheterize the umbilical vessels in any patient. Pressures were obtained with a Statham (p23Db) strain gauge on a photographic recorder. Blood for oxygen saturation from the heart chambers were determined with a Kipp hemoreflector or an Instrumentation Laboratories oximeter. Single plane cineangiograms at a speed of 60 frames per second were performed in all patients. Renografin (60%) in the total dose of 4—5 cc. per Kgm. was used as angiographic contrast.

Whenever surgery was indicated it was carried out as soon as possible, frequently within an hour or two following cardiac catheterization. Various palliative or definitive surgical procedures were carried out on any baby when prospects of significantly improving arterial saturation or congestive heart failure could be hoped for.

Of the 113 patients studied one patient was found to have unexplained clinical cyanosis with normal arterial saturation. Two patients had respiratory distress syndrome with pulmonary hypertension and the rest were found to have serious congenital heart disease.

Because of the difference in mortality in infants less than one month of age and those from one to 12 months of age, the two age groups of patients are presented separately in Table II. The most common cardiac lesions in patients presenting under one month of age were transposition of the great arteries, tetralogy of Fallot, hypoplastic left heart syndrome, and total anomalous pulmonary venous return. In patients presenting over one month of age, the most common cardiac lesions were ventricular septal defects, atrial septal defects, patent ductus arteriosus, and tetralogy of Fallot. Among the miscellaneous conditions were Pompe's disease, subaortic stenosis, subendocardial fibroelastosis, and a patient with the right pulmonary artery originating from the ascending aorta.

TABLE II

CARDIAC LESIONS PROVED AT CATHETERIZATION

Diagnosis	<1 month	1-12 months
Transposition of the great arteries	13	6
Tetralogy of Fallot	6	10
Hypoplastic left heart syndrome	5	0
Total anomalous pulmonary venous return	5	1
Ventricular septal defect	5	16
Tricuspid atresia	3	0
Coarctation syndrome	3	2
Truncus arteriosus	2	2
Valvular pulmonic stenosis	2	3
Patent ductus arteriosus	0	11
Atrial septal defect	0	10
Miscellaneous	6	2
	50	63

Of the 19 patients with transposition of the great arteries, 10 had D-transposition of the great arteries with ventricular septal defect; 5 had D-transposition of the great arteries with intact ventricular septum and 4 had L-trans-

TABLE III

SURGICAL OPERATIONS PERFORMED IN SIXTY-ONE INFANTS

Operation	Number Operated		Postoperative Deaths	
	<1 month	1-12 months	<1 month	1-12 months
Pulmonary artery banding	6	7	2	3
Brock procedure	5	6	1	1
Patent ductus arteriosus ligation	0	11	0	0
Atrial septostomy	4	0	2	0
Blalock-Taussig shunt	1	5	0	0
Waterston-Cooley shunt	3	1	1	1
Pott's anastomosis	2	1	0	0
Total correction of TAPVR*	5	1	5	0
Closure of ventricular septal defect	1	0	0	0
Superior vena cava to right pulmonary artery anastomosis	0	1	0	1
Subaortic resection	1	0	1	0
	28	33	12	6

* Total anomalous pulmonary venous return.

position of the great arteries with associated anomalies. Six patients had total anomalous pulmonary venous return of which 3 drained above and 3 below the diaphragm. Ten atrial septal defects were studied, 4 were of the secundum defect and 6 were of the ostium primum variety with atrioventricular valve abnormalities.

A total of 61 patients (54%) had surgical procedures. Twenty-eight of these were less than one month of age and 33 patients were over one month of age (Table III).

Atrial septostomy using a balloon catheter (Rashkind procedure) to increase mixing of blood at atrial level in D-transposition of the great arteries was performed in 5 infants. In 3 patients, the procedure was successful in increasing the arterial O_2 saturation by 20-40 per cent and there was an observable clinical improvement. In the other 2 patients it was considered unsuccessful because the patients did not have an increase in arterial saturation and a surgical atrial septostomy was performed within 24 hours of performing the Rashkind procedure.

MORTALITY

Catheterization Mortality. Six of the patients (12%) died within 24 hours of cardiac catheterization. A two-week-old baby with hypoplastic left heart syndrome died during the catheterization procedure. A tabulation of their deformities is shown in Table IV. No patient died as a result of a Rashkind balloon atrial septostomy. All had inoperable malignant defects which usually cause death in the first weeks of life.

Surgical Mortality. Of the 61 patients operated, 18 died during the first three postoper-

TABLE IV

CARDIAC LESIONS IN PATIENTS DYING WITHIN 24 HOURS OF CARDIAC CATHETERIZATION

1. Hypoplastic left ventricle
*2. Hypoplastic left ventricle
   ASD, PDA
3. Hypoplastic left ventricle
   VSD, PDA
4. Hypoplastic left ventricle
   ASD, VSD, PDA
   Coarctation of the aorta
5. Polysplenia and dextrocardia with complex cardiac malformation
   PAPVR, ASD, VSD, PDA, P.S. Subaortic stenosis and hemiazygous—SVC continuation
6. D-transposition of the great vessels with common ventricle
   Subaortic stenosis, bicuspid aortic valve and coarctation of the aorta
   ASD, PDA
   Cleft tricuspid valve

* Died at catheterization.

TABLE V

OPERATIVE DEATHS

Operation	Autopsy Diagnosis
1. Correction of venous return	TAPVR*—below diaphragm
2. Correction of venous return	TAPVR*—below diaphragm
3. Correction of venous return	TAPVR*—below diaphragm
4. Correction of venous return	TAPVR*—above diaphragm
5. Correction of venous return	TAPVR*—above diaphragm
6. PA banding	D-TGA† + VSD + overriding PA + aortic atresia + PDA
7. PA banding	Common AV canal, hypoplastic aortic arch, pulmonary hypertension
8. PA banding	Truncus arteriosus Type I
9. PA banding	Truncus arteriosus Type I
10. PA banding	Hypoplastic aortic arch, VSD, PDA
11. Brock procedure	Tetralogy of Fallot
12. Brock procedure	Tetralogy of Fallot
13. Waterston-Cooley shunt	Tetralogy of Fallot
14. Waterston-Cooley shunt	Pulmonary atresia, double outlet, LV, common AV valve
15. Blalock-Hanlon atrial septostomy	D-TGA†
16. Blalock-Hanlon atrial septostomy	D-TGA†
17. Superior vena cava to right pulmonary artery anastomsis	D-TGA†, common atrium, VSD and pulmonic stenosis, PDA and asplenia
18. Subaortic stenosis resection	Endocardial fibroelastosis, subaortic stenosis

* Total anomalous pulmonary venous return.
† D-Transposition of the great aorta.

TABLE VI

PATIENTS WHO DIED AFTER MEDICAL MANAGEMENT

No.	Diagnosis	Age at Death	Period Between Cath and Death
1.	Double outlet RV, AV communis Persistent LSVC and pulmonary atresia Cleft palate Gastrostomy	1 wk	5 days
2.	Dextrocardia, PDA, ASD, pulmonary hypertension	1 day	2 days
3.	Supravalvular aortic stenosis, VSD, ASD, M.I., PPS, D-pneumonia Webbed neck, bilateral inguinal hernias	3 mon	2 days
4.	Truncus arteriosus (bicuspid) Fused mitral valve Pulmonary hypertension Pneumonia (neg. culture)	3½ mon	17 days
5.	Glycogenosis Type II (Pompe's disease)	4 mon	31 days
6.	Tetralogy of Fallot, pulmonary atresia	4 mon	2 days
7.	ASD Pneumonia (Klebsiella and pseudomonas) Immature brain and spinal cord, hypospadias	4 mon	3 days
8.	Primary pulmonary hypertension Hypoplastic left pulmonary veins Cutis marmorata and cerebral atrophy and severe gliosis	4½ mon	32 days
9.	Hypoplastic aortic arch VSD, PDA, pulmonary hypertension Aspiration and pulmonary hemorrhage Cleft palate Trisomy 18 Inflamed Meckle's diverticulum	3 mon	3 days

ative days (Table V). Ten died in the operating room, and 8 died in the intensive care unit. There were no late postoperative deaths. All 5 patients who were less than one month of age with total anomalous pulmonary venous return died in the immediate postoperative period.

Medical Management Mortality. The nonsurgical mortality is shown in Table VI. Mortality after medical management alone which included the administration of oxygen, digitalis and diuretics occurred in 9 patients. Death resulted from pulmonary infections, aspiration of feeding or vomitus, and intractable congestive heart failure, in babies with complex defects or associated severe non-cardiac malformations (Table VI). Two of these were less than one month of age and seven were older.

Fourteen infants under one month and 23 other than one month responded to medical management and are being followed.

DISCUSSION

The group of patients described herein are infants in the first year of life with congenital heart disease of life threatening proportion. It is not surprising that in this series, as well as others,[3, 5] lesions incompatible with long life are frequent. Relatively benign cardiac abnormalities, such as the ventricular septal defect, are less frequently encountered even though they are common in series based on clinical evaluation of children over one year of age.

Since cyanosis and severe congestive heart failure in the newborn usually do not improve with medical management alone, failure to establish an early definitive anatomical diagnosis by cardiac catheterization and angiocardiography can seriously compromise an infant's chance of survival if surgical management is to be undertaken. The mortality of infants at cardiac catheterization has been reported to vary from 10-19 per cent.[10, 11] In this group the mortality was 12 per cent. Death after catheterization occurred only in those who were moribund and had inoperable complex cardiac malformations.

The complications of catheterization were infrequent. One of our patients with transposition of the great arteries bled into the peritoneal cavity after a balloon atrial septostomy. He recovered without incident. Small babies following cannulation of the femoral vein and artery have frequently developed coldness, cyanosis, and swelling of the catheterized lower extremity for a few days. In none of the patients has this been a lasting problem.

We believe that the mortality from cardiac catheterization in infants can be minimized by performing the shortest possible investigation to arrive at an adequate anatomic diagnosis, by assuring adequate ventilation, by prevention of hypothermia, and by correction of metabolic acidosis during the catheterization procedure.

The operative mortality in our series of patients less than one month of age was 43 per cent, similar to other reported series.[9, 11] The mortality is high as might be expected in operations on patients who are small, sick and afflicted with severe cardiac anomalies. But when viewed in the light of the life expectancy of symptomatic congenital heart disease at this age, we are encouraged to seek care and definitive diagnosis for these infants as soon as possible. Often the success of a surgical procedure depends upon the carrying out of an operation as soon as possible after a definitive diagnosis is established, and before irreversible deterioration has occurred.

SUMMARY

One hundred and thirteen patients have undergone cardiac catheterization under the age of one year at The University of Iowa Hospitals from January 1, 1968 to September 30, 1969. Fifty of these patients were less than one month of age and presented with systemic cyanosis, congestive heart failure or a combination of both. Six infants under one year of age died following cardiac catheterization. All had malignant congenital cardiac defects.

Early investigation and early surgery, often of palliative nature, has yielded a significant number of surviving infants (43 of 61) who have benefited by the procedure.

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Preoperative Evaluation of the Cardiac Patient

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1. An evaluation of the cardiovascular status is a traditional prerequisite when a major surgical procedure is contemplated; this is particularly so with our aging hospital population which is often burdened with a complexity of medical problems.

2. In the cardiopulmonary patient valuable data may be obtained from the recording of a History, not just beamed in on surgical symptoms, but concerned with the life profile, i.e., habits, drugs and diseases. An analysis of the functional capacity may be elicited by asking the patient about his exercise tolerance for hills, stairs or simply walking on the level. At the end of the total examination an American Heart Association classification can be applied. In general, Class III and IV patients may require extensive study and treatment before the ultimate decision to operate is made. Such a classification is helpful in publication of surgical treatises.

3. *The physical examination* provides many clues regarding the functional cardiopulmonary status. A third sound gallop, pulsus, alternans, jugular venous distention at 35-45 degrees elevation of the trunk may point to failure, even when rales are not heard. It is vital to listen to the five arteries—carotids, subclavians, aorta, femoral and renal vessels. It is imperative to palpate the pedal vessels, popliteal arteries, radials, and carotids. Cardiologists today gain much information from feeling the carotid arteries—carotid shudder of aortic stenosis, pulsus bisferiens of several aortic valve entities, the slow anacrotic upstroke of aortic stenosis, the collapsing pulse of aortic regurgitation, and diminished pulsations due to arteriosclerotic narrowing.

4. *Electrocardiographic tracing.* This should be done early in the hospital course, to avoid last minute searchings for the interpretation, to eliminate cancellations because of marked unsuspected findings, and to have data available to the anesthetist for approval. The electrocardiogram provides a false sense of security. It is only as good as the interpreter and the surgeon who employs it as a building block in the total clinical profile of the surgical patient. All men over 40 and all women over 45 should have a routine EKG.

5. *Chest x-ray.* This should be part of the routine workup, it should be included in the admission laboratory work. Pulmonary pathology may be silent. A patient may have left sided failure without rales or ventricular diastolic gallop rhythm, yet the radiologist may report interstitial edema.

6. *Routine blood chemistry.* The following tests are important: BUN, FBS, Creatinine, Uric Acid, Cholesterol and T-3 re thyroid function. Hyperuricemia is often found in the presence of atherosclerosis and may speed up the development of this process. Also the trauma

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of surgery may invite postoperative gout. Baseline information is absolutely vital and invaluable.

7. *Basic pulmonary function studies.* Since pulmonary complications are relatively frequent in cardiac patients, and because pulmonary function often mirrors the power of the heart, to obtain vital capacity, FEV-1, 2, 3, may be simply and quickly recorded. A vital capacity under 2 liters should cause great concern.

8. *Electrolytes.* Routine preoperative determination of these is mandatory. This becomes more important in the patient on diuretics, sodium restricted diets, digitalis, and intravenous feedings with or without nasogastric suction.

9. *Blood gases.* In the elderly patient, the smoker, the individual with bronchitis, emphysema or other cardiopulmonary conditions, these determinations become indispensable to the anesthetist. Some do not favor surgery in a patient with a pCO_2 of 50 or over.

10. *Blood volume.* This is not a routine procedure, and a request for it should be based on the nature of the patient's problem. If it seems essential, urge doing it well in advance of the operative procedure, then correct the blood volume deficit. Because of the half-life of the isotope employed, one has to wait 3-4 days to repeat the test if valid answers are to be obtained. Thus the need to do it early.

11. *Blood, fluid and electrolyte administration.* To quote Friedberg:[1] "The intravenous administration of sodium-containing fluids, including blood, plasma or amino acid infusions should be avoided, or if essential, must be conducted with special caution as to the quantity and rate of infusion. The advisability of giving packed red blood cells instead of whole blood should be considered when transfusion is indicated because of preoperative anemia or because of blood loss during operation."

12. *Liver profile and serum proteins.* In a hospital population studded with patients who use alcohol generously the liver profile is essential, especially for the anesthestist who may consider the use of agents of the halothane family. Wound healing and cardiac function are supported by restoring serum proteins to normal by the safest method dictated by the clinical portrait. In some cases salt-poor serum albumin may be wisest preparation.

13. *Drugs.* Diuretics deplete blood volume and serum potassium. The rauwolfia preparations deplete catecholamines and may be associated with resistant shock. The hazard of previous steroid administration is well known.

14. *Determination of the cardiac output.* Sophisticated medical departments often have a densitometer to perform cardiogreen indicator dye dilution studies. This may be done intravenously at the bedside or in the cardiac catheterization laboratory. It is believed to be more accurate than the older Fick principle.

15. *Special studies to investigate cardiac function.* The decholin circulation time is a rough but acceptable test. Stress testing using the treadmill and telemetry or the conventional Double Master's Two-step test may smoke out subendocardial ischemia.

16. *Renal function.* This is intimately tied in with cardiac (pump) function. Special problems require special investigation. The urine specific gravity is very basic and fundamental. The Fishberg concentration test is also uncomplicated and of no annoyance or risk to the patient. Our digitalis maintenance dosage is, in part, gauged by the renal function. The creatinine clearance is reliable, assuming the 24-hour urine is faithfully collected.

17. *Partial thromboplastin time.* Whereas formerly all surgical patients had a bleeding and coagulation time, it is my understanding that the PTT has superseded these and covers a broad spectrum of hematologic disorders, including the prothrombin time.

18. *Major arrythmias and conduction defects.* In most of these instances cardiac consultation is warranted.

19. *Cardiac enlargement.* In patients with enlargement and without failure, many physicians *partially* digitalize them for inotropic effect and antiarrythmic action. During the operative or postoperative phases, more digitalis can be given. This is a controversial area with good evidence for and against such an approach.

20. *The cardiologist.* It is easier and quicker for the cardiologist to appraise the patient's status with this data before him—not ordered afterward.

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Amenorrhea—A Clinical Guide

II. Secondary Amenorrhea

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SECONDARY AMENORRHEA, not an uncommon gynecologic complaint, means that menstruation, once established, has ceased on a continuous or intermittent basis. Since this symptom is due to a variety of underlying disorders, a diagnosis is necessary before appropriate therapy can be instituted.

While the underlying disorders are diverse, they generally have the common denominator of disrupting the fine balance in the hypothalamopituitary-ovarian axis. The result is anovulation which causes either prolonged amenorrhea or amenorrhea interspersed with episodes of abnormal vaginal bleeding. So in a sense one should consider dysfunctional uterine bleeding and amenorrhea as opposite sides of the same coin—anovulation.

The etiology of the menstrual dysfunction may be ascertained quickly from the history and physical examination, or may be determined only after lengthy and detailed investigation. Similarly, depending on the diagnosis, the treatment can be simple, or even unnecessary because of spontaneous cure, but more often it can be complicated and prolonged.

It is the purpose of this paper to outline a practical diagnostic and therapeutic approach to the problem of secondary amenorrhea. In Table I the various disorders which are encountered in our endocrine clinic are classified. Figure 1 is a diagnostic flow sheet which may be helpful in following the text of this paper.

This article supplements the discussion of primary amenorrhea presented in the January issue of the JOURNAL. Dr. Yannone is a professor and Dr. Chapler an assistant professor in the Department of Obstetrics and Gynecology at The U. of I. College of Medicine. Dr. Scott is a resident in the Department.

TABLE I

CAUSES OF SECONDARY AMENORRHEA

- I. CENTRAL NERVOUS SYSTEM
  - A. Galactorrhea-amenorrhea syndromes
    - 1. Functional
      - a. Chiari-Frommel
      - b. Ahumada-del Castillo
    - 2. Tumor—Forbes-Albright
    - 3. Drugs
      - a. rauwolfia preparations
      - b. phenothiazines
      - c. oral contraceptives
    - 4. Associated endocrine disorders
      - a. hypothyroidism, Cushing's, acromegaly, etc.
  - B. Panhypopituitarism (Sheehan's syndrome)
  - C. Organic lesions
    - 1. Intracranial tumors
    - 2. Organic brain disease
  - D. Psychogenic
    - 1. Hypothalamic
    - 2. Pseudocyesis
    - 3. Anorexia Nervosa
    - 4. Psychoses—schizophrenia, manic-depression
- II. THYROID
  - A. Hypothyroidism
  - B. Hyperthyroidism
- III. ADRENAL
  - A. Androgenic
    - 1. Cushing's (virilizing)
    - 2. Adrenal neoplasm—adenoma, carcinoma
    - 3. Congenital adrenal hyperplasia (fetal or adult onset)
    - 4. Adrenal androgenic hyperplasia (can be associated with ovarian androgenic hyperplasia)
  - B. Addison's disease
  - C. Cushing's (non-virilizing)
- IV. OVARIAN
  - A. Androgenic
    - 1. Virilizing neoplasms—hilar cell, lipoid cell, arrhenoblastoma
    - 2. Ovarian androgenic hyperplasia (can be associated with adrenal androgenic hyperplasia)
  - B. Premature menopause
- V. UTERINE
  - A. Pregnancy
  - B. Endometrial sclerosis (Asherman's syndrome)
  - C. Cervical stenosis
- VI. SYSTEMIC DISORDERS
  - A. Diabetes mellitus, juvenile
  - B. Obesity
  - C. Malnutrition

I. THE MORE COMMON CAUSES

The most common cause of secondary amenorrhea is pregnancy and should be considered first. A good history, adequate pelvic examination and a dependable pregnancy test easily diagnose this physiologic state.

The most prevalent cause of pathologic secondary amenorrhea in our experience is the so-called "hypothalamic or neurogenic amenorrhea." This entity is closely followed in incidence by the androgenic disorders, while the amenorrhea-galactorrhea syndromes run a distant third. These three problems are considered first.

A. *Hypothalamic*—Apparently a variety of emotional and environmental factors can cause both a quantitative and qualitative disturbance in gonadotropin production. Perhaps with the newer immunoassays for FSH and LH, aberrations in the secretion of these protein hormones will be documented. At the moment, however, we must use our clinical judgment and the hormonal assays available to diagnose this disorder on an exclusion basis. While this category of amenorrhea is often considered a waste paper repository for undiagnosed cases, one can in actuality define these patients reasonably well.

The history of a possible precipitating factor or group of factors is helpful. Most easy but least common is the correlation of the onset of amenorrhea with an acute traumatic event such as the death of or separation from a close family member. More often one elicits a more vague history of chronic stress like a heavy academic schedule, undue social or parental pressures, or a frustrating marital relationship. Even more frequently, unfortunately, the precipitating factors are not readily apparent. Generally these patients are slender (some give a history of relatively recent weight loss) and seem either anxious or depressed. Physical

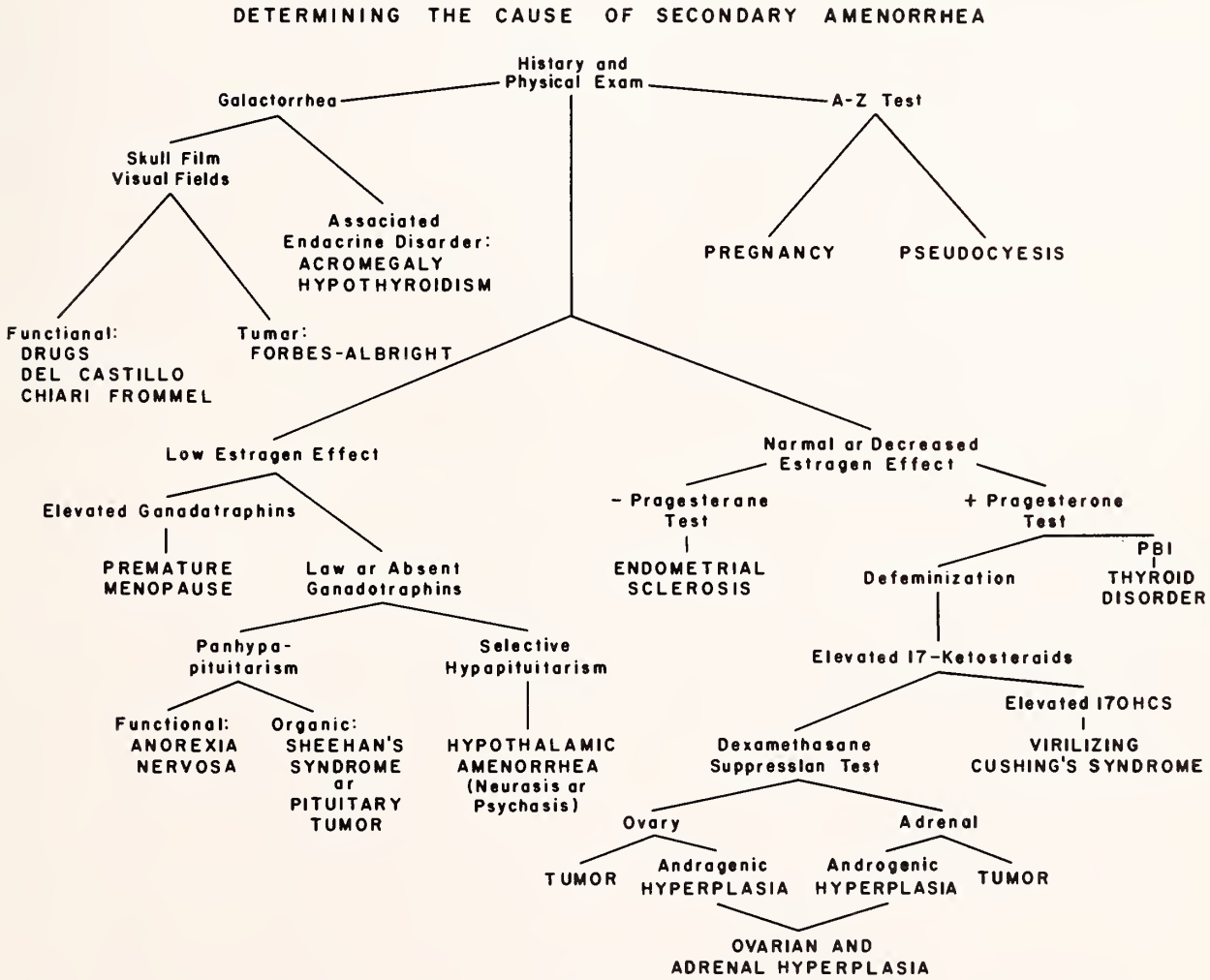

FIGURE I

examination is not rewarding since these women have a normal female configuration without evidence of galactorrhea or hirsutism. Often, but not invariably, the vaginal mucosa and uterine size indicate some estrogen deficiency.

Endocrine studies show normal thyroid and adrenal function, and a vaginal maturation index reveals a shift toward intermediate and basal cell types. The endometrial response to a Provera® provocative test (10 mg. daily for 5-7 days), which evaluates estrogen status, usually is negative or results in minimal vaginal bleeding. The urinary gonadotropins on bioassay are either low or absent. A coned down view of the sella turcica to exclude pituitary tumors is mandatory when these patients complain of significant headaches or visual disturbances.

Therapeutically the physician is favored by time, as many of these women will revert to spontaneous menses with sympathetic reassurance and support or by alleviation of the acute or chronic stress. Since low doses of estrogen are believed to stimulate gonadotropin secretion,[1, 2] we usually take a more aggressive approach and place these patients on Premarin® 0.3 mg. or stilbesterol 0.1 mg. daily except when menstrual flow intervenes. This program with or without a mild tranquilizer often proves to be helpful. However, we try to avoid the sequential and combined oral contraceptives to induce menses in these women as these medications further inhibit an already depressed gonadotrophic capability. Occasionally a patient is so disturbed emotionally that time or hormonal therapy should defer to the services of a competent psychiatrist.

A number of women with hypothalamic amenorrhea or oligomenorrhea first seek medical advice because of infertility. Once the diagnosis is confirmed, they are candidates for ovulatory induction with clomiphene citrate (Clomid®). The success of this therapy correlates well with the patient's estrogen status —ovulation being more likely to occur if the patient has occasional spontaneous menses or has withdrawal bleeding from Provera®. In general these women seem to have a minimal risk of ovarian hyperstimulation from use of this drug.

Our mode of using clomiphene in this group of patients is as follows: a 50 mg./day dose is given for five days starting on the third day of a spontaneous or induced menses. However, it may be started without a preceding menses. The patient is instructed to monitor her morning oral temperature on a basal body temperature chart and given coital instruction on the basis that ovulation usually occurs 5-10 days after stopping the medication. If ovulation occurs without ensuing pregnancy, the same dosage is repeated upon menstruation. If repeated ovulations do not result in pregnancy, other parameters, such as tubal patency and the husband's fertility potential, should be evaluated. The failure to induce ovulation at this dose level requires a gradual increase in the clomiphene dosage until the maximum of 100 mg. daily for seven days is reached. No clomiphene course should be repeated in less than four weeks. If the seven-day course is not successful, it can be supplemented by human chorionic gonadotropin (HCG) injections of 5,000 I.U./day on the eighth and ninth days of the medication cycle. Coitus should occur during these last two days. Failure of the supplemented clomiphene course indicates the need for human menopausal gonadotropins (Pergonal®) followed by HCG as an ovulation inducer.[3] This medication has recently become available but is expensive, requires daily injections, and can cause serious side effects. Therefore, it should not be used except by a clinician with considerable experience and with the laboratory facilities necessary to monitor the patient's response.

An iatrogenic form of hypogonadotropic amenorrhea is seen in some women upon termination of the contraceptive pills. They must be differentiated from the larger group of women with "post pill amenorrhea" who actually had a prior menstrual disorder which was masked by, rather than caused by, the oral contraceptives.[4, 5] These women need a complete diagnostic workup to ascertain the cause of the original menstrual disorder which has re-emerged, and they should be treated on the basis of the diagnosis made. On the other hand, the true "post pill amenorrhea" group has a self limited disorder. However, if the amenorrhea is prolonged, Clomid® is usually curative.

B. *Androgenic Disorders*—Since the relatively uncommon causes of female virilism such as adrenal and ovarian tumors, congenital adrenal hyperplasia and virilizing Cushing's

syndrome have been considered by us in other publications,[6-8] we shall discuss here only the woman with "simple hirsutism." We refer here, in other words, to the patient whose clinical findings are limited to excessive hair growth, acne, and usually, but not invariably, menstrual dysfunction. In our endocrine clinic this patient constitutes over 99 per cent of the androgenic disorders and is the second most commonly seen example of pathologic menstrual aberration. The pathogenesis of "simple hirsutism" is not as well defined as that of the uncommon virilization disorders, and therefore considerable confusion exists concerning its diagnosis and management. As a consequence, we shall consider our clinical approach to this group of women.

The diagnostic evaluation of these patients includes determination of the urinary 17-ketosteroids prior to and during differential suppression of the adrenals and ovaries. Our present protocol for diagnosis is shown in Table II. Since an occasional patient with a genetically resistant hair follicle will have elevated 17-ketosteroids and menstrual dysfunction, but no hirsutism, all patients with abnormal menses or infertility should be screened with a 24-hour urine for the 17-ketosteroids.

To better understand the ketosteroid values depicted in Table III, one must consider first normal, ovulating women. Their baseline levels range from 4 to 10 mgms. daily and suppress to less than 3 mgms. with dexamethasone. Jacobs[9] utilizing the laboratory at this institution found the average baseline value in five women to be 8.8 mgms. which decreased to 2.1 mgms. on dexamethasone. A similar study of 10 normal women by Benjamin *et al*[10] showed a mean of 9.03 and 2.39 mgms. prior to and during dexamethasone suppression respectively.

In contrast, women with "simple hirsutism" usually have baseline 17-ketosteroids in excess of 10 mgms. daily, and on the basis of the differential suppression values can be placed into three functional groups.

1. *Adrenal Androgenic Hyperplasia* (AAH) —The urinary 17-ketosteroids are moderately elevated and drop to less than 3 mgms. with

TABLE II

DIFFERENTIAL ADRENAL AND OVARIAN SUPPRESSION IN THE WORKUP OF AN ANDROGENIC DISORDER

METHOD:

1. Baseline—Collect one, preferably two, 24 hour urine specimens for the 17-ketosteroids. When two specimens are collected, the baseline value is the average.
2. Adrenal suppression—Give dexamethasone 2 mgm. orally every 8 hours for 3 days (9 doses), then reduce dosage to 0.25 mgm. every 8 hours until the end of the study. Collect a 24 hour urine specimen for the 17-ketosteroids on the seventh (or later) day.
3. Adrenal and ovarian suppression—After collection of the above urine and while continuing dexamethasone 0.25 mgm. every 8 hours, place the patient on a 20-day course of Enovid E® daily. On the fifteenth (or later) day of this second medication, have the patient collect the last 24 hour urine specimen for 17-ketosteroids.

TABLE III

INTERPRETATION OF THE DIFFERENTIAL SUPPRESSION STUDIES
17 KETOSTEROID VALUES IN MGMS./24 HOURS

1. Baseline	2. Dexamethasone	3. Dexamethasone and Enovid E	Diagnosis
<10 (normal range 5-10)	<3	—	Androgenic disorder unlikely but not invariable. See the text.
15-25	<3	—	Adrenal androgenic hyperplasia
10-20	5-10 (decrease 10 or less)	Further suppression <3	Ovarian androgenic hyperplasia
15-35	5-10 (decrease is >10)	Further suppression <3	Both adrenal and ovarian androgenic hyperplasia
15-30 (>30=Adrenal rest tumors)	10-20	Essentially no change	Ovarian virilizing neoplasm
>40	<3	—	Congenital adrenal hyperplasia
>80	Essentially no change	—	Adrenal virilizing neoplasm

The above values are presented as "general rules of thumb" and should not be construed as being absolute for every patient.

TABLE IV

DIFFERENTIAL STUDIES IN 43 PATIENTS

Diagnosis	17-Ketosteroids in 24 Hour Urine		
	Baseline	Dexamethasone	Dexamethasone and Enovid E
Adrenal androgenic hyperplasia—6 patients	15.2 ± 2.1 mgms.	2.7 ± 0.7	—
Ovarian androgenic hyperplasia—25 patients	12.9 ± 3.2 mgms.	6.8 ± 2.3	4.3 ± 1.1
Combined androgenic hyperplasia—12 patients	20.4 ± 6.2 mgms.	4.7 ± 0.9	2.8 ± 0.6

adrenal suppression. The means for six patients with this disorder are seen in Table IV.

2. *Ovarian Androgenic Hyperplasia* (OAH) —the 17-ketosteroids are mildly elevated and suppression with dexamethasone is incomplete. This indicates a residual abnormal level of the ketosteroids which are ovarian in origin. A further decrease occurs when gonadotrophin inhibition is instituted with Enovid E®. The mean values for 25 patients with this diagnosis are shown in Table IV. The levels are similar to the 11.5, 5.16 and 2.18 mgms. reported by Benjamin *et al*[10] for 22 patients with polycystic ovary syndrome studied in a comparable manner. The more complete suppression to 2.18 mgms. on Enovid®, in contrast to our 4.3 mgms., may be explained by their use of one Enovid E® tablet three times a day rather than our once daily routine.

3. *Combined Ovarian and Adrenal Androgenic Hyperplasia* (OAH + AAH)—The baseline 17-ketosteroids are moderately elevated, incompletely suppressed with dexamethasone, further depressed with the addition of Enovid E®. This group differs from the OAH group in that the drop elicited by the dexamethasone exceeds 10 mgms. and indicates adrenal hyperactivity as well. Twelve of these patients' values are reported in Table IV.

Our experience with the urinary 17-ketosteroids in several hundred patients who underwent differential suppression studies indicates that the distribution of the 43 patients (Table IV) into the three groups represents fairly accurately the general incidence. These 43 women concomitantly underwent plasma androgen studies[11] which validated the conclusions drawn from the 17-ketosteroids. The urinary 17-ketosteroids shown in Table III for androgenic neoplasms and congenital adrenal hyperplasia are included for completeness.

Several problems are encountered with utilization of the 17-ketosteroids for the differential diagnosis of "simple hirsutism," as not every patient fits perfectly into a category. Briefly some of these are:

1. *The hirsute female with normal baseline 17-ketosteroids.* Dexamethasone clarifies the diagnosis as the suppression is incomplete. For example a baseline of 9 mgms. drops only to 6 mgms. and the diagnosis is OAH.

2. *The non-hirsute patient with a menstrual disorder and elevated 17-ketosteroids.* This elevation plus her good estrogen status differentiates her from the patient with hypothalamic amenorrhea. Differential suppression places her in the proper androgenic group.

3. *A hirsute woman with mildly or moderately elevated 17-ketosteroids which with dexamethasone decrease to an equivocal level, say 3.5 mgms.*

a) If the decrease is less than 10 mgms., she has OAH.

b) If the decrease exceeds 10 mgms., she has AAH but there is doubt whether the ovaries are also androgenic. The solution lies in discontinuing the Enovid E® while continuing dexamethasone at maintenance levels. If followup urinary ketosteroids drop very low she has AAH alone. If the ketosteroids rise up to 5-7 mgms. and/or the patient has a noticeable increase in new hair growth, OAH is also present. The ovarian component has become manifest and she should be treated as an OAH + AAH.

Our therapeutic efforts are directed toward inhibition of the abnormal secretions of androgens to stabilize or decrease the androgenic manifestations and to induce ovulation when fertility is a consideration. The therapy is dictated by the functional group into which the patient fits.

1. *Adrenal Androgenic Hyperplasia*—It is believed that this disorder is mediated by hy-

pothalamic-pituitary dysfunction which causes an increased secretion of ACTH or a closely related trophic hormone. The adrenals respond with an increased androgen, but not increased cortisol secretion. Control is achieved by discontinuance of the Enovid E® at the conclusion of the diagnostic studies while continuing dexamethasone at 0.25 mgm. q 8 hours for one year. The every 8 hour regimen is important to maintain the adrenals quiescent around the clock. We see these patients every two months and periodically check the urinary 17-ketosteroids to ascertain whether they remain below 3 mgms. All patients on adrenal suppression are required to carry identification which emphasizes this fact in case of severe stress due to infection or accidental or operative trauma. On this therapy the appearance of new hair growth stops, the menstrual cycle becomes more regular and often ovulatory. At the end of one year of treatment, the patient is slowly tapered off of the glucocorticoid. Subsequently many of these patients continue to demonstrate 17-ketosteroid values below 10 mgms. and remain asymptomatic. Recurrence requires another year of therapy. Dexamethasone is the glucocorticoid of choice because it is a potent ACTH inhibitor, has no mineralocorticoid effects and is effective at a dosage low enough not to interfere in subsequent evaluations of the endogenous hormonal status.

2. *Ovarian Androgenic Hyperplasia*—The excessive production of androgens by the ovaries seems to be mediated via hypothalamo-pituitary dysfunction. Bioassay[12] and immunoassay[13] techniques show an elevated and noncyclic secretion of luteinizing hormone. In our opinion OAH is the most common cause of female hirsutism and encompasses entities such as the Stein-Leventhal or polycystic ovary syndromes.

Our therapy consists of the suppression of excessive ovarian androgens by the cyclic use of a non-androgenic oral contraceptive such as Enovid®. It also appears that the estrogen in the pill increases the binding of plasma testosterone by a plasma protein (testosterone-binding globulin)[14] and possibly decreases the retention time of testosterone's active form (dihydrotestosterone) in the cells of responsive tissues.[15] These two effects may serve to decrease the biologic activity of any testosterone which remains after ovarian suppression.

Unlike dexamethasone therapy for AAH, the oral contraceptive must be used indefinitely. Cessation of therapy results in the reappearance of acne and oily skin as well as the onset of new hair growth within a few months. If a patient with OAH desires a pregnancy, the pill is stopped and ovulation induced with Clomid®. Since women with androgenic disorders may be very sensitive to Clomid, the initial dose should be 50 mgms. q.d. for two to three days rather than the standard 5-day course. The "pill" is resumed at the 6-week postpartum checkup to control the hirsutism. Fortunately the hair growth during pregnancy remains in remission because the ovaries are suppressed by the placental steroid hormones.

We reserve wedge resection of the ovaries for those women who for a variety of reasons cannot take an oral contraceptive or clomiphene citrate. If this surgical procedure is done, then the amount of ovarian tissue excised is considerable. Our position on this procedure is dictated by the initial failure rate and the problem with recurrence. Eventual recurrence after partial resection should not be unexpected in any endocrine disorder caused by hypersecretion of a gland secondary to excessive trophic hormone. A good example is the propensity for the return of Cushing's disease when bilateral adrenal hyperplasia is treated by partial adrenalectomy. At the moment no evidence exists in the literature that a Clomid® failure will necessarily respond to a wedge resection or *vice versa*.

3. *Combined Ovarian and Adrenal Androgenic Hyperplasia*—When this diagnosis is made, dexamethasone is continued at 0.25 mgms. every 8 hours for one year, and Enovid E® is prescribed indefinitely on a cyclic basis. If a pregnancy is desired, both medications can be stopped and Clomid® therapy instituted. Occasionally the patient is very resistant to Clomid and will not respond until the abnormal adrenal androgen production is controlled with dexamethasone.

Medical therapy of the hirsutism in the hyperplastic androgenic disorders does not achieve remarkable results. However, this should surprise no one since excision of an androgenic neoplasm does not cause rapid regression of the hair growth postoperatively. Rather one should hope to achieve by medical therapy clearance of acne, decreased sebum

production, slowed hair growth and the absence of the growth of new hair. Only after treatment for years can disappearance of old hair growth be anticipated. Because of this fact, the cosmetic results are best if therapy is instituted early in the progression of a hirsute disorder; least rewarding is the institution of treatment in a woman who shaves daily. The old hair growth can be managed by bleaching, wax or chemical depilatories, and shaving. The patient should be reassured that shaving does not increase the coarseness, rate or density of hair growth.[16] Once one is certain that medical therapy has stopped the appearance of new hair, then he can recommend the expensive procedure of electrolysis to destroy the follicles of the old hair growth in exposed areas.

C. *Amenorrhea and Galactorrhea*—Excluding the breast-feeding mother, the association of galactorrhea with amenorrhea is a pathologic condition which can have a serious organic basis. Since this symptom combination is not as uncommon as one would surmise, it is mandatory that every amenorrheic woman be questioned about and examined for breast milk. However, the secretion of a drop or two of clear straw-colored fluid with periareolar pressure, particularly in multiparous women, should not be considered galactorrhea.[17] Other findings in this syndrome include utero-ovarian and vaginal mucosal atrophy secondary to the poor estrogen status, and low or non-detectable urinary gonadotropins. It is believed that these signs and symptoms result from interference with the production of FSH and LH releasing factors and prolactin inhibiting factor (PIF) in the hypothalamus or their passage via the portal system to the adenohypophysis. The result is unrestrained prolactin secretion by the pituitary with minimal or absent elaboration of FSH and LH.

Having detected galactorrhea in the amenorrheic patient, the clinician should consider the following possibilities:

1. The patient is or recently has been on certain medications such as—

a. Phenothiazine tranquilizers in moderate or large dosages—Stelazine®, Mellaril®, Thorazine®, etc.

b. Reserpine to treat hypertension.

c. The oral contraceptives or the synthetic progestin, Depo-Provera.

2. She has or is developing a specific endocrine disease like hypothyroidism, Cushing's syndrome or acromegaly, among others. Amenorrhea and galactorrhea can be the only apparent findings in early acromegaly.

3. There is a mass lesion in the hypothalamo-pituitary region. An intracranial mass should always be suspected in this disorder, especially with a history of severe recurrent headaches and visual disturbances. If present, it is often a chromophobe adenoma of the pituitary. The designation "Forbes-Albright syndrome" is used when a non-functioning pituitary tumor is associated with amenorrhea and galactorrhea.

4. Excluding the above three causes of the disease, the patient's symptoms can be on an idiopathic basis as defined below—

a. Chiari-Frommel syndrome—The amenorrhea and galactorrhea date back to pregnancy.

b. Ahumada-del Castillo syndrome—There is no relationship to a gestation.

While the former has the better prognosis for spontaneous remission, it can recur following the next pregnancy.

If the patient is on a medication which can cause the disorder, it should be stopped and an appropriate substitute used. Except for the Depo-Provera which has a prolonged effect, the signs and symptoms usually regress in one to three months. Failure of regression should dictate further studies to evaluate thyroid and adrenal function as well as growth hormone status. Also mandatory is a coned down view of the sella turcica and evaluation of the visual fields. Once a tumor is suspected, consultation with a neurologist is required for more sophisticated studies which may include angiography and pneumoencephalography. An intracranial lesion will require either irradiation, surgery or both.

In the absence of tumor, specific endrocrine disorder, or suspect medication, the patient is considered to have one of the idiopathic syndromes. Actually a majority of these women fall into this category, but their followup care should include repeat coned down sella turcica x-rays at yearly intervals, or sooner if neurologic symptoms develop. This precaution is necessary as not a few of them subsequently develop intracranial lesions.

If the patient with idiopathic amenorrhea

and galactorrhea does not desire a pregnancy, her estrogen status can be improved and the galactorrhea suppressed by Enovid-10® or Ortho-Novum® 10 mgm. used in a cyclic fashion. When pregnancy is desired, this type of medication can be stopped and ovulation induction attempted with clomiphene. These low estrogen status women are less responsive to this drug than those with androgenic disorders. If Clomid® fails, then Pergonal followed by HCG can be tried.

II. THE LESS COMMON CAUSES

A number of other disorders can on occasion be the cause of secondary amenorrhea. Since the clinician must be alert to these possibilities when evaluating a patient, some of these entities will be briefly reviewed.

A. *Sheehan's Syndrome (Pituitary Cachexia)*—Classically this form of panhypopituitarism occurs as a result of prolonged shock from a severe postpartum hemorrhage. Apparently the hyperplastic adenohypophysis of pregnancy is sensitive to anoxic destruction. However, with modern blood banks and the ready availability of whole blood, this etiology is becoming less common. We see this pituitary injury most often in the pregnant juvenile diabetic with significant vascular disease, whether the delivery is or is not complicated by postpartum hemorrhage.

The clinical manifestations of panhypopituitarism can be mild to severe. Subclinical cases may be undetected for years; adrenal failure may ensue after another pregnancy or unrelated physical stress. The diagnosis can be suspected in the early puerperium with the patient's failure to lactate, regrow shaved pubic hair or recuperate from the stress of labor because of undue fatigue.

The diagnosis is verified by appropriate hormonal studies which verify depressed growth hormone secretion and subnormal thyroid, adrenal and gonadal function.

Treatment consists of long-term hormonal substitution and should be under the supervision of a competent endocrinologist. The patient's poor estrogen status can be adequately handled by the cyclic use of a sequential oral contraceptive. Since pituitary function is often destroyed, clomiphene citrate is usually ineffective for the induction of ovulation. However, the ovaries contain dormant ova, and ovulation can often be attained with Pergonal and HCG therapy.

B. *Pseudocyesis*—This aggregation of signs and symptoms creating the picture of pregnancy is an excellent illustration of the psyche's influence on the function of the anterior pituitary via the hypothalamus. Release of gonadotropins is interfered with by emotional stress, which is usually an intense fear of, or desire for pregnancy. These women present with symptoms of amenorrhea, nausea, enlarged abdominal girth, weight gain, "fetal movement," and are firmly convinced and sometimes able to convince their doctors that they are pregnant. Diagnosis is best made by careful physical examination and the finding of a small non-pregnant uterus. Weakly positive pregnancy tests have been reported, probably on the basis of elevated LH levels. Because their estrogen level is too low to give a response, some will have a positive "pregnancy test" when a progestin alone is used to induce withdrawal bleeding.

It is important to realize that there is an underlying emotional disorder. In the woman fearful of pregnancy it is useful to employ one of the cyclically administered estrogen-progestin preparations to evoke episodes of uterine bleeding, as a rather remarkable response occurs when she is shown not to be pregnant. More difficult is the woman extremely desirous of pregnancy. She requires a careful infertility workup to ascertain the cause of her sterility and its correction when possible. Some have more deep-seated psychologic problems and require professional psychiatric care.

C. *Anorexia Nervosa*—This dramatic syndrome occurs in young women who have an aversion to food and usually an apparent psychiatric disturbance. It is often brought on by dieting and weight loss for real or supposed obesity, and minor degrees are probably more common than realized. The illness is aptly described as a "psychogenic blackout" of the pituitary, with decreased secretion of TSH, ACTH, and gonadotropins with resultant low normal or subnormal function of the target glands. The clinical picture is one of an extreme degree of emaciation with amenorrhea, breast atrophy, and estrogen deficiency. Despite the clinical pattern of hypometabolism

and wasting, these patients are usually active, restless, and resentful of advice concerning their treatment.

Aggressive medical management including hospitalization and overfeeding by nasogastric tube or venoclysis may be necessary to tide over life-threatening emaciation. Although these women are difficult to manage, large doses of Thorazine®,[18] Compazine®, or other tranquilizers are useful. Fortunately, psychiatric reversal of the process does occur, and with restoration of appetite the entire syndrome is reversible. However, relapses are not uncommon.

D. *Other Central Nervous System Disorders*—Any space-occupying intracranial neoplastic, inflammatory or vascular lesion can disrupt the hypothalamo-pituitary axis and cause amenorrhea. The role of pituitary tumors in the amenorrhea-galactorrhea syndromes has been alluded to previously. Even though the menstrual abnormality may be the initial symptom, the neurologic signs of such lesions soon overshadow the amenorrhea. Therapy is deferred to the requirements of the neurologic specialists.

We have been impressed by the number of epileptics who have menstrual dysfunction. It is not clear whether the menstrual disorder is secondary to the neurologic disease or the medications which are used to control it. The mild and diffuse hair growth seen in some of these women is due to Dilantin.® Clomid® as an ovulatory agent is not contraindicated in the epileptic.

In the section on "hypothalamic amenorrhea," considerable attention was given to the role of the neuroses as a cause of this symptom. However, the psychoses also deserve consideration, since about one-third of women suffering from schizophrenia and the depressive phase of a manic psychosis manifest amenorrhea.[19] It is not an uncommon symptom after electroshock therapy. Treatment of the psychosis is the primary consideration; the prognosis for the amenorrhea depends on the degree and persistence of the psychiatric disorder.

E. *Thyroid Disorders*—Control of gonadotropin release is known to be related to euthyroidism. Thyrotoxicosis causes amenorrhea along with the well known features of weight loss, tachycardia, tremor, and goiter. Either menorrhagia or amenorrhea due to anovulation can be present in the listless, slow-talking, hypoactive woman with typical hypothyroidism. When the clinical diagnosis of either is verified by laboratory tests such as RAI uptake, serum thyroxine, etc., appropriate therapy of the thyroid disease will result in the resumption of normal menstrual periods. However, oral thyroid preparations have been used almost as a routine for menstrual dysfunction and infertility in euthyroid women who are considered "subclinical" cases. Double blind studies[20, 21] show the ineffectiveness of this empirical approach. In the euthyroid patient, orally administered thyroid hormone simply depresses endogenous thyroid production by an amount biologically equivalent to the exogenous hormone dose. After about two weeks the endogenous and exogenous hormone in combination give essentially pretreatment blood levels.

F. *Premature Menopause*—Early ovarian failure with amenorrhea takes place spontaneously before the age of 40 in about 8 per cent of women,[22] and this sometimes occurs as early as the 20's. The typical menopausal symptoms, with prominent hot flashes in a young woman, a left shift in the vaginal cytologic maturation index, and a high level of urinary gonadotropins are diagnostic. These women are prone to develop premature osteoporosis,[23] atrophic vaginitis, and other symptoms of estrogen deficiency. Therefore, long term estrogen replacement such as Premarin® 1.25 mgm. daily for three weeks followed by one week of rest is appropriate and effective treatment. Again, if menses are necessary to the patient, estrogen and progesterone can be given in the form of one of the sequential preparations.

G. *Uterine Failure*—If the endometrium is normal, it should respond to ovarian hormones. In the absence of pregnancy, the failure to bleed following the administration of estrogen-progesterone combinations indicates that the endometrial lining is destroyed or markedly involuted, or that the egress of menstrual flow is blocked at the cervical level. Tuberculous endometritis is now an unusual cause of endometrial destruction in this country. Cervical stenosis, suggested by a history of cyclic lower abdominal pain with absence of menstrual bleeding following conization or exten-

sive electrocautery of the cervix, is alleviated by repeated dilatations of the cervix. Endometrial sclerosis (Asherman's syndrome) is seen at times after vigorous curettage for abortion or post-partum bleeding, especially with concurrent endometritis. The puerperium is the time when intrauterine surgery carries this risk, as curettage at other times seldom disturbs menstrual function. At attempted biopsy, either no endometrium or very scant atrophic endometrium is obtained. Many times the internal os is obstructed. Hysterography shows the typical intrauterine synechiae with very little endometrial cavity present. All endocrine parameters including the BBT chart are normal.

Treatment consists of attempts to stimulate the growth of whatever endometrial tissue is left by first giving Premarin® 5-10 mgm. daily for several weeks preoperatively. A dilatation and blunt curettage is then done with the liberal use of Hegar dilators to interrupt synechiae and restore an endometrial cavity. An intrauterine device such as a Lippes loop[24] is left in the uterine cavity to maintain this space and to keep the internal os patent. Postoperatively the high dose of estrogen is continued for two more weeks. Utilizing Provera® 10 mgms. daily with the Premarin® for the last 10 days, one can stop both hormones and achieve controlled withdrawal bleeding. If menses ensue, another cycle can be instituted with Premarin® 1.25 mgm. daily for 25 days and Provera® 10 mgm. daily from the 16th through 25th day. Then the patient is allowed one natural cycle before the intrauterine device is removed. Subsequent pregnancies can be marred by abortion and premature labor.

SUMMARY

In summary, we have considered from a diagnostic and management viewpoint the common and less common causes of secondary amenorrhea seen in our menstrual disorder and infertility clinic. The need for an adequate diagnosis has been stressed. Having achieved this, the clinician can judiciously utilize the various therapeutic modalities now available to him. This sequential approach increases the successes obtained in the care of these difficult problems, not an unrewarding experience for the physician both intellectually and clinically.

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The JOURNAL plans occasionally to print pictures taken at medical meetings. Please send black-and-white prints that you have snapped at your meeting, with the names of the doctors pictured and a brief résumé of the program.

Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

For continuing education of medical practitioners to be maximally useful and effective, it should provide help of a *practical sort* about a *real problem,* and do it *right now* and *at the learner's location.* That's a tall order.

One way to accomplish the aforementioned is to make available *brief* (about 5 minutes) recorded units of information or instruction about a wide variety of medical topics. A physician with a need or desire to know about one of these topics should be able to dial from any telephone (on a 24-hour, no-charge basis) the repository of such tapes, request the one he specifically needs and listen to the information.

Sound helpful? Such a service is *now* available to Iowa physicians.

Dial 1-800-228-4011 at no charge.

That same telephone number can also give you immediate consultative service about drugs, their actions and side effects, dosage, toxicity, contraindications, etc.

The Iowa Regional Medical Program (IRMP) is providing the tapes, drug consultation service, and the telephone lines to foster improved care. A catalog of available tapes has been mailed to you and your hospital. Additional copies are available on request—through the IRMP (308 Melrose Avenue, Iowa City, Iowa 52240 or 319-353-4018).

And just in case you didn't know about it, IRMP also helps make more available to you the fine services of the State Medical Library at the Historical Building in Des Moines. Since last July a toll-free number has been available to put you in touch with the Medical Library. In addition to its own resources, the Library has ready access to almost any kind of printed references you may wish. They will mail you a Xerox copy of any item you request. If it is more than 30 pages long, they will send you the original and ask you to mail it back. They will provide a bibliographic search, or run down a review article, or do whatever they can to provide you good service. Providing service to physicians is what brings them joy. It is a game we all win.

For the State Medical Library, dial 1-800-362-2384.

I encourage you to get acquainted with these valuable resources. They are just waiting for you. Give them a try!

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-4792.

June 8-10	Basic Mycology (State Hygienic Laboratory)
June 10	Workshop in Basic Blood Banking (Sioux City)
June 10	Clinical Day in Cerebrovascular Disease
June 14-16	Conference on Hypertension, Cardiology and Nephrology
June 14-August 7	Annual Course for Orthopedists
June 23	Refresher Course on Cerebrovascular Disease
June 28-July 2	Summer Workshop on Alcoholism
July 26-30	Pupil Transportation Workshop
August 19	Refresher Course on Cerebrovascular Disease

U. of I. College of Medicine

A series of conferences entitled, "The Community Fights Back," is being presented by the U. of I. College of Medicine. Future sessions are noted below:

Toward Improved Sex Education	*Sites*
June 5	University of Iowa Memorial Union, Iowa City
June 12	Hotel Blackhawk, Davenport
June 16	Holiday Inn South, Des Moines
June 17	St. Anthony's Regional Hospital, Carroll

Editorials

COMMUNICATION—A TWO-WAY PROPOSITION

Some months ago the following incident actually happened in my office. During the course of my routine examination of a four-year-old child, the mother protested vehemently about the boy's eating habits—how little he ate, his poor dietary desires, and such as we have heard frequently. Finally, in desperation, she said "But Doctor, he just won't eat—period"—whereupon the child, who during the discussion seemed to be ignoring the entire proceedings, suddenly blurted out "But Mom, I don't like periods!"

Now, there is a communication problem. It is that in addition to being an example of the negative attitude which a youngster can adopt when a mother instinctively applies pressure to keep the child's stomach full of food. A lesson can be gained from all this. In the March 1971 issue of this JOURNAL I commented about several aspects of communication—openness, trust and care, as well as conflict and growth. Obviously in this incident good communication between child and mother was lacking. When communication is poor it is usually accompanied by some degree of distrust, incompatibility, fear, and unresolved personal conflict.

So it is in our relationships between other colleagues as well as our patients. If we cannot foster the art of relationship a void may exist —communication is poor and misunderstanding results. We need greater skills in relating with others. Good communication does not mean simply clear speech. When one complains that he can't communicate with another he really means he cannot relate—he cannot understand or accept the kind of person he is and the behavior that is being exhibited. Doubts develop and the art of relationship suffers.

Medical journals serve as a means of communication. Unfortunately, too often they operate in one direction only, but they need not be so restricted. Not only are manuscripts solicited, but suggestions regarding the content of the JOURNAL are welcomed. This publication represents the principal means of communication between the members of the Iowa Medical Society. Can you communicate?

ON DIABETES MELLITUS

Considerable information has been accumulated on the vascular abnormalities in diabetes mellitus. Controversy has arisen about the pathogenesis. New light has reflected from some studies reported recently out of Denmark. Lundbaek, *et al** postulate a relationship between diabetic angiopathy and growth hormone. As we know, diabetes mellitus is characterized by a complex disturbance of metabolism recognized clinically as hyperglycemia with eventual widespread abnormalities of the structure and function of the blood vessels. The best known ocular manifestation of diabetic angiopathy is retinopathy. There is no clear cut answer as to the mechanism involved in the pathogenesis of angiopathy. However, the basement membrane of the vascular walls is made up of complex carbohydrate-containing proteins. Metabolic disturbances reflected by changes in the amount of blood sugar in all probability affects the metabolism of these substances.

* Lundbaek, K., *et al:* Pathogenesis of diabetic angiopathy and growth hormone. DANISH MED. BULL. 18:1-7, Feb. 1971.

Editorials continued...

It has been shown that all patients with diabetes—even those "well-controlled"—have high and fluctuating 24-hour levels of plasma growth hormone. Furthermore, renewal of the source of growth hormone by pituitary ablation has been shown to inhibit the development of the diabetic retinopathy. Furthermore, there is also a manifestation of skin capillary fragility.

Now, of course, hypophysectomy in each case of newly-discovered diabetes is not acceptable. However, if a chemical compound could be discovered that might suppress or destroy the growth hormone producing capacity of anterior pituitary cells there might be a clinical application. Precedent has been set in our knowledge that diazoxide suppresses the insulin producing capacity of islet cells. The need for continuing research is evident within the complex maze of our lack of complete understanding of diabetes mellitus. Our eyes, with clear vision unhampered by retinopathy nor skepticism, should be focused on the future work of the Danish researchers.

THE DEMISE OF THE NURSING CAP

During a recent experience as a patient in two different hospitals it was observed that only a few older registered nurses wore the nursing cap. To one who has spent many, many years working in hospitals the absence of this crown of distinction and recognition was confusing and disappointing. Only hospital guild members in their cherry red smocks and the young girls in their candy stripe outfits could be promptly identified. All other female personnel dressed in white had no distinguishing attire or mark of recognition. The pin often worn by the registered nurse is too small to be read, is insufficient identification, and even this badge has been abandoned by many. It should not be necessary for the patient to inquire whether the individual caring for him is an R.N., L.P.N., student nurse or aide. Even technicians are similarly attired. This was confusing to the physician patient and is presumed to be even more so for a layman unfamiliar with the many different hospital personnel.

It is hoped the nursing profession will seek to maintain its noble public image and encourage proper identification of these dedicated women. The nursing cap is still a crown of distinction.

In one of the hospitals a two-way speaker system connected the patient's room with the desk of the charge nurse on the floor. When the patient pressed the call signal the charge nurse immediately asked, "May I help you?" The patient then made his wants known. There was no delay in filling the patient's needs or wants. This innovation resolves a problem which prevails in most hospitals, and one which gives rise to many, many complaints.

DENNIS H. KELLY, SR., M.D.

LAUDS NEW PUBLICATION

The JOURNAL regularly receives books for review. These are referred to physicians about the State for their evaluation. The editorial staff wishes to extend its thanks to those who have given their time and talent to write reviews over the years.

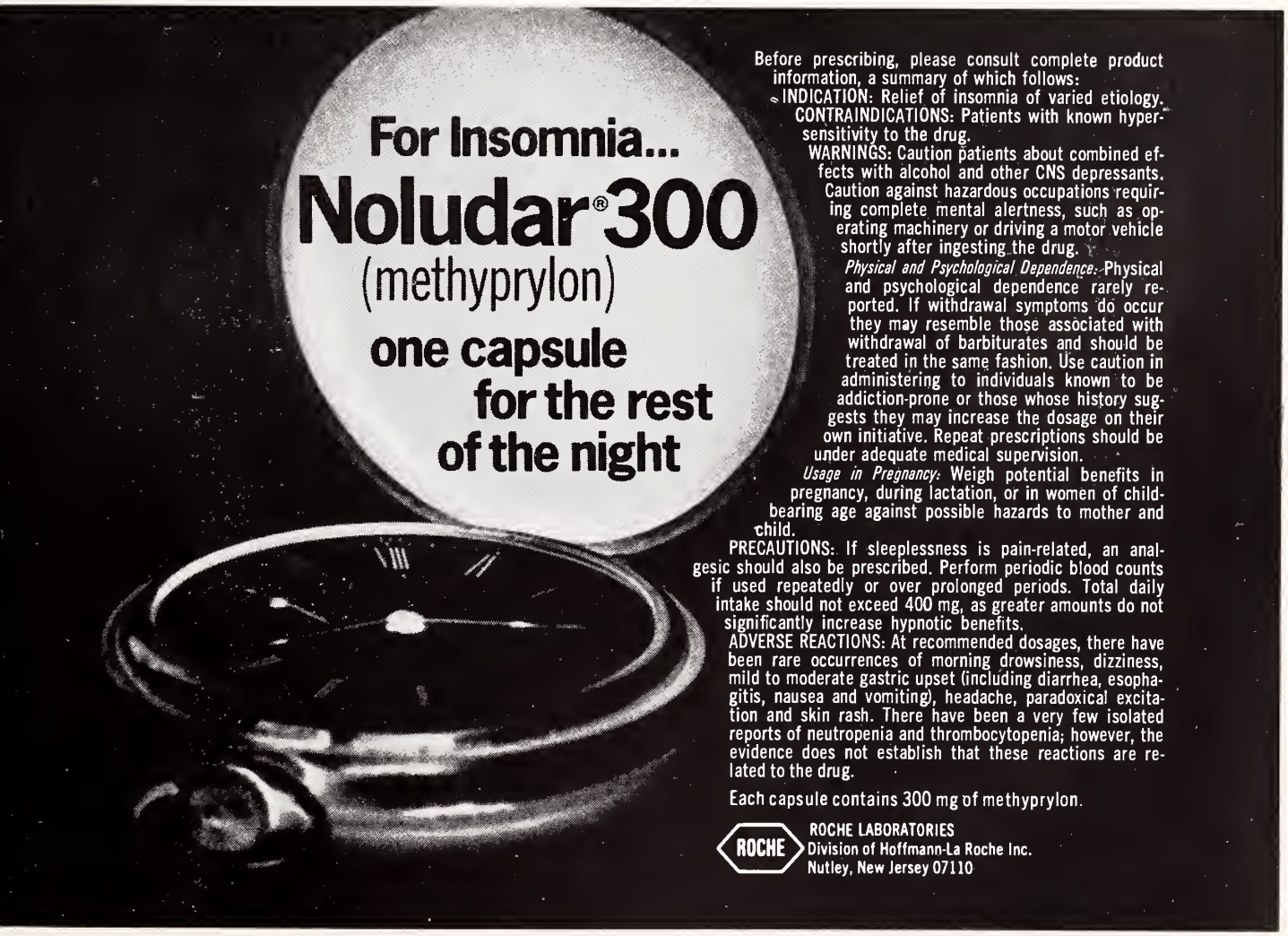
I would like to offer an unsolicited comment on an excellent review series recently made available by subscription. "Pediatric Portfolio" has been introduced during the past month as a bi-weekly four page review of specific pediatric subjects presented by a top-notch group of editors under the leadership of Philip L. Calcagno, M.D., Professor of Pediatrics,

School of Medicine, Georgetown University. The fourth edition, entitled "Management of the aseptic meningitis syndrome," is the latest review available. Previous editions dealt with recurrent urinary tract infection, headache and clinical manifestations of cardiac failure in children.

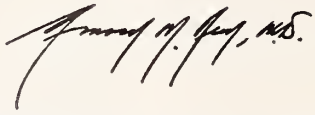
It is a continuing effort by physicians to keep up-to-date. Monographs of all sorts are published, taped recordings are available, textbooks are appearing with ever-increasing frequency, and many journals are available either by subscription or sent on a complimentary basis. Some are good, others are not.

Last month I commented on the mode of utilization of medical journals by physicians in various disciplines of medicine. It is evident that we can have a problem keeping abreast of the times. Short-cuts are necessary most of the time in our learning process. Short summaries by subscription may be an answer for many of us. These, when provided in the loose-leaf manner of "Pediatric Portfolio" can be filed and utilized as one means of review.

It will be interesting to observe how well this form is received and what its longevity will be. Hopefully, it will have a healthy and strong infancy in the world of publishing; we hope it will move from infancy to early childhood uncomplicated by too many growing pains. Then perhaps other specialties (including Family Practice) will follow suit.



STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Communicable Disease Reporting

Rules for reporting communicable disease have been devised by the State Department of Health and have been adopted in accordance with Chapter 139, Acts of the 63rd Iowa General Assembly. A complete copy of the rules may be obtained from the Preventive Medical Service of the Department.

The following diseases or conditions are required to be reported to the State Department of Health, Lucas State Office Building, Des Moines, Iowa 50319 by the physician or other health personnel attending any person infected with such disease:

A. Specific diseases:

Anthrax
Botulism
Brucellosis
Chancroid
Chickenpox
Cholera
Diarrhea, epidemic, of newborn in nurseries
Diphtheria
Encephalitis
Gonorrhea
Glanders
Granuloma Inguinale
Hepatitis, viral (infectious or serum)
Histoplasmosis
Influenza
Leprosy
Leptospirosis
Lymphogranuloma venereum
Malaria
Meningitis
Mononucleosis, infectious
Mumps
Pertussis (whooping cough)
Plague
Poliomyelitis
Psittacosis
Rabies
Relapsing fever
Rocky Mountain spotted fever
Rubella (German measles)
Rubeola (measles)
Salmonellosis
Schistosomiasis
Shigellosis
Smallpox
Staphylococcal food poisoning
Syphilis
Tetanus
Trachoma
Trichinosis
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Yellow fever

B. Any other disease which is unusual in incidence, occurs in unusual numbers or circumstances, or appears to be of public health concern.

REPORTING

The following means of reporting are available:

A. Telephone, telegraph or other electronic means.

(1) Internationally quarantinable disease. Occurrence of a case of any internationally quarantinable disease shall be reported immediately by telephone, telegraph or other electronic means as soon after the diagnosis as possible. Internationally quarantinable diseases are cholera, plague, relapsing fever (louse-borne), smallpox and yellow fever.

(2) Disease of high pubic health importance. Occurrence of a case of typhoid fever or diphtheria will be reported to the Department immediately by telephone, telegraph or other electronic means as soon after the diagnosis as possible.

(3) Occurrence of an outbreak of unusual numbers or under unusual circumstances of a communicable disease, such as epidemic diarrhea of the newborn in nurseries or a food poisoning episode, shall be reported immediately to the Department by telephone, telegraph or other electronic means.

B. By mail or other means. Cases of other reportable diseases shall be reported to the Department by mail at least weekly. If there is concern that delay might hinder the application of organized control measures to protect the public health, incidence of communicable disease should be reported by telephone.

WHO SHOULD REPORT

Physicians are required by law to report all cases of reportable disease attended by them. Hospitals are encouraged to report cases of reportable disease admitted. School nurses are encouraged to report cases of communicable disease occurring among the children supervised. School officials, through the principal or superintendent as appropriate, are encouraged to report when there is no school nurse. Parents are encouraged to report, particularly when disease occurs in children not in school or when the disease might otherwise not be reported.

FORMS

Reports of communicable disease, other than venereal diseases, may be submitted in writing on any paper and in any format.

Venereal diseases should be reported on a special form which is provided to physicians and laboratories. Since these reports are confidential, they shall be transmitted in envelopes or other secure fashion. Reports of venereal disease must include name, age, sex, marital status, occupation of the patient, name of disease, possible source of infection and the duration of the disease. In localities where there is a local, functioning health department, the law requires the report to be made to the local health department. Local health departments must forward the same information to the State Department of Health.

ISOLATION

The time periods for isolation and quarantine are set forth in the accompanying table.

DISEASE	PERIOD OF ISOLATION	PERIOD OF QUARANTINE
Chickenpox	7 days from onset of pocks.	None
Diphtheria	Until after 2 negative cultures from nose and throat, 24 hours apart.	5 days, if susceptible intimate contact
Rubella (German measles)	5 days from onset of rash. Keep away from pregnant women.	None
Impetigo	Until physician permits return.	None
Infectious Hepatitis	14 days from onset of clinical disease at least 7 days from onset of jaundice.	None
Rubeola (measles)	7 days from onset of rash.	None
Meningococcal Meningitis	Until physician permits return.	None
Mumps	9 days or until swelling disappears.	None
Pediculosis	1 day after DDT or other adequate treatment.	None
Poliomyelitis	7 days from onset.	None
Ringworm of scalp	Until physician permits return.	None
Scabies	Until adequately treated by physician.	None
Scarlet fever Scarlatina Strep throat	7 days from onset if untreated or 24 hours after antibiotics.	None
Smallpox	Until all scabs are gone.	17 days if unvaccinated and uncooperative
Whooping cough	21 days from beginning of whoop.	None

Donate Your Body to Science

Because of the general public's increasing awareness of the need for bodies for anatomical education and research, physicians may be asked by patients how they may will or deed their bodies to a medical school for the advancement of medical science.

To help you answer specifically such inquiries, a leaflet entitled, "Answers to Your Questions about the Deeded Body Program," has been prepared by the Department of Anatomy at The U. of I. College of Medicine and is available upon request. Physicians and/or interested citizens may obtain a copy of the leaflet and necessary forms by writing the Department of Anatomy, University of Iowa College of Medicine, Iowa City, Iowa 52240.

University Hospitals DRUG LETTER

Chemotherapy in the Treatment of Wilms' Tumor

C. E. HAWTREY, M.D.
Iowa City

Wilms' tumor, nephroblastoma, represents one of the few solid tumors that responds to chemotherapy. Three beneficial drugs which evolved over the past 10-12 years in therapy of nephroblastoma include: dactinomycin (Cosmegen®), vincristine (Oncovin®), and cyclophosphamide (Cytoxan®) and demonstrate variable effectiveness. Extensive experience with dactinomycin indicates this drug as the drug of choice. More recently vincristine has been suggested in the early management of this neoplasm.

Many management variables involved in patient care include age at time of diagnosis, size of the tumor, preoperative therapy, intraoperative findings, and postoperative therapy, including chemotherapy and irradiation therapy. The scope of this discussion relates to chemotherapy so the other important factors can only be covered with rather brief biographical statements. Gross and Neuhauser noted marked improvement in survival (80 per cent for two years) when therapy was instituted before the first birthday.[1] Unfortunately this age group represents only three per cent of the 59 patients seen in this hospital, and other series confirm this observation.[2]

Weisel[3] at the Mayo Clinic, and more recently Kinzel[4] demonstrated that the mass of neoplastic tissue is often two to four times the normal renal size and associated with renal vein involvement (40 per cent). Regional lymphatic extension, large bowel mesentery involvement, tumor mass, venous involvement and direct extension of the tumor alter prognosis unfavorably and indicate postoperative irradiation and/or chemotherapy.

The radioresponsiveness of Wilms' tumor is acknowledged by most authors but the therapeutic role of irradiation remains controversial. The pros and cons of this issue are discussed in the following references.[5, 6, 7]

Until relatively recently chemotherapy has been relegated to the "court of last resort" in the treatment of patients with inoperable or metastatic lesions. Dactinomycin has the longest experience, dating back to 1955 in the work of Farber.[8] Farber achieved a two-year survival of 89 per cent in operable patients treated with surgery, irradiation and dactinomycin. (Compare with the earlier paper by Gross from the same institution.) The two-year survival for patients who subsequently developed chest metastases postoperatively reduced survival to 24 per cent and the patients were treated with dactinomycin and irradiation to the chest. Therapeutic drug effectiveness on the basis of single or multiple sources of dactinomycin was studied by Wolf, *et al,* who demonstrated an 86 per cent, 15-month survival for patients treated with multiple courses at three-month intervals compared with a 48 per cent survival in patients receiving only one five-day course of 15 micrograms per kilogram per day postoperatively. E. O. Burgert, Jr., partially evaluated chemotherapeutic timing related to surgery in an uncontrolled study.[9] The authors noted their best survivals in individuals treated on the day of surgery with decreased survival in individuals treated preoperatively or as late as one week postoperatively. The authors acknowledged that patients getting preoperative therapy had more extensive neoplasms and represented a small group (10) of the total 120 patients. No significant difference was demonstrated between patients treated preoperatively and those treated one to seven days postoperatively.

More recently, vincristine sulfate has demonstrated dramatic reduction in tumor mass. Sullivan, *et al,* used 0.05 mg./Kg. vincristine preoperatively for two doses with prompt regression in neoplastic mass.[10] These authors suggest that this therapy might replace irradiation in the preoperative therapy of some patients. Postoperative weekly injections over three months have been advocated.

Cyclophosphamide has been used as the drug of third choice in Wilms' tumor. A few authors report its use as primary drug therapy with good results.[11]

Twenty-six University Hospital patients have received some form of postoperative chemotherapy in the past 13 years. Of this group 38 per cent are alive but four patients have been at risk less than two years. All other patients are free of neoplasm at least five years post-resection of the neoplasm. All but one patient received dactinomycin at some time in their life history with the neoplasm. Several patients who survived received the drug preoperatively but the numbers are insufficient to draw conclusions. Until recently most patients benefited from dactinomycin only after

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Dr. Hawtrey is an assistant professor in the Department of Urology at The U. of I. College of Medicine. This editorial appeared initially in the January-February, 1971 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

metastases appeared. In these instances practically all the patients showed at least some objective improvement by some measurable parameter, but some patients succumbed after this initial favorable response. On the other hand, several patients benefited from combined judicious surgery, chemotherapy, and irradiation. All patients who developed liver metastases ultimately died of their disease.

Vincristine has been used as the drug of second choice with good results in selected patients, notably a child treated for bilateral but sequential nephroblastoma treated with nephrectomy and heminephrectomy with postoperative chemotherapy (dactinomycin and vincristine) for tumor at the resection line. The child has survived over five years since the original diagnosis, and three years since her heminephrectomy.

Cyclophosphamide has been used in this hospital as a poor third choice drug with only questionable response and no survivors. Again only four patients received this therapeutic modality so that no real conclusions can be drawn.

In summary the judicious use of surgery, irradiation, and chemotherapy must be focused on each individual patient. Experience and the literature seem to indicate that dactinomycin in doses of 15 micrograms/Kg. for five days in intermittent three-month courses or vincristine, 2 mg./meter sq. of body surface area in weekly injections are effective in the treatment of Wilms' tumor. If chemotherapy is to be effective in the prevention of metastatic disease, it must be instituted early and continued periodically for at least 15-24 months. The place of preoperative chemotherapy is not well identified. There is a suggestion from other authors which indicates that vincristine can produce shrinkage of the primary neoplasm of similar magnitude to irradiation therapy. Most important in the management of all patients is the dialogue and coordination of effort among surgeons, chemotherapists and radiotherapists.

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Morbidity Report for Month of April 1971

Diseases	April 1971	1971 to Date	1970 to Date	Most April Cases Reported From These Counties
Brucellosis	3	6	10	Crawford
Chickenpox	1267	3912	3361	Black Hawk, Dubuque
Conjunctivitis	77	297	134	Butler, Jones, Polk
Gastrointestinal viral infection	1221	4685	173	Keokuk, Page, Winnebago
German measles	192	420	1512	Polk
Gonorrhea	464	1631	1559	Linn, Polk, Scott
Hepatitis				
Infectious	25	115	129	Scott
Serum	2	9	0	Scott
Histoplasmosis	1	8	6	Hardin
Impetigo	38	180	227	Lee, Polk
Infectious mononucleosis	180	523	278	Clayton, Johnson, Marion
Influenza	16**	22**	15**	Johnson
Leptospirosis	1	1	1	Washington
Malaria, imported				
P. falciparum	1*	1*	2	Webster
P. vivax	3*	11	5	Audubon, Hardin, Polk
Measles	1029	1546	73	Appanoose, Wapello
Meningitis				
H. influenza	2	3	2	Butler, Dubuque
Meningococcal	1	8	6	Polk
Mumps	801	2176	1788	Cedar, Marion, Polk
Pneumonia	103	369	345	Scott
Rabies in animals	30	98	30	Scattered
Rheumatic fever	8	25	22	Scattered
Roseola	4	6	0	Dubuque
Salmonellosis				
S. blockley	5	5	2	Wapello
S. derby	1	4	0	Linn
S. enteritidis	1	3	0	Wapello
S. java	1	1	0	Black Hawk
S. newport	1	7	1	Woodbury
Shigellosis				
S. sonnei	8	23	32	Polk, Pottawattamie, Scott
type unspecified	1	1	0	Pottawattamie
Streptococcal infections	1119	3358	3320	Johnson, Winnebago
Syphilis	71	209	188	Black Hawk, Polk
Tuberculosis, active	10	50	48	Polk
Whooping cough	5	11	11	Cass, Scott

*Delayed

**Laboratory confirmed

American Association of Medical Assistants

State of Iowa, Inc.

President's Message

This is a condensed version of the acceptance speech presented by Mrs. Marjorie Snyder at her installation as President of the State of Iowa Chapter on May 15 in Mason City.

* * *

Word smiths would be hard put to fashion a better phrase than *Life, Liberty, and the Pursuit of Happiness* to describe the objectives of a Rx for better living. For our Association these words have a special meaning. The medical profession, and all of us connected with it, have the preservation of human life as our very cause for being. The medical profession, and our Association, have constantly fought for the liberty to perform our functions properly.

Mrs. Snyder

Our Association was born in 1955, after an ardent, although sometimes awkward courtship, a legal consummation, and a completely proper period of gestation. We believed in 1955 that medical assistants could provide better and more efficient services to doctors and their patients by forming a professional association. By so doing, we could exchange ideas, we could widen our horizons, and we could find personal and professional advancement opportunities. The unfolding years attest to the validity of the premises on which we based our action; but 1971 is not 1955. Truth remains eternal, but the law of change is the law of life. Our existence is not reason enough for being. Decay from within our ranks, or apathy, can destroy us. No profession, no organization, no nation ever stood pat and survived. We cannot stand still.

Real progress comes only through day to day dedication to our profession and through unselfish willingness to work for our Association. Modern management principles teach us most massive and complex problems can be solved if we reduce the uningestible whole to bite-size chunks. We can then handle them one at a time ourselves, or better yet, we can parcel the pieces out to different persons for simultaneous mastication, deglutition, and assimilation.

I suggest we run all our Association affairs along these same lines. I suggest that, rather than having a few who are willing to do 90 per cent of the work, we involve all members. Let each chairman set definite goals for her committee. Let each committee member pledge what contribution she will make. For example, the Education Committee might set its sights on a specific number of seminars, or a pharmaceutical tour. Plans for these would be divided and subdivided down to the last detail. The Membership Committee will, of course, set goals for total membership. I would like to see contests to meet quotas, awards for those securing the most new members, and similar competitive devices.

Let me address myself to the younger members of our Association. I know many of you sometimes feel we old-timers think we know it all; that we are intolerant of new ideas. We plead guilty! To a greater or lesser extent all of us suffer from the imperfections to which all flesh is heir, and for these faults we must be constantly on the alert. For these very reasons we need you young people far more than you need us. We need your new ideas and your fresh approach. We need your criticism—your honest, constructive criticism.

Ours is a great organization. In 16 years we have gained the recognition, the trust and confidence of the medical profession. Here let me comment on the need for a state and national level of our own Association. Perhaps the greatest asset of the state and national Association is the ability to see more objectively our aims and purpose for being. On the local level we are apt to let personalities govern our attendance and enthusiasm. We must have such state and national representation to serve as counterparts to the AMA and all professionally related organizations.

Finally, let us never forget that since we are associated with a profession whose members are held to the highest standard of ethics, we also are held to a high standard. We have done much for our members—let us do more. We have made a splendid record of service to our doctors, and to our patients—let us do better. Let us strive harder, ever harder, to measure up, professionally and personally, to the goals we have set for ourselves.

THE DOCTOR'S BUSINESS

Time Saving Tips for Your Practice

LARRY E. LEAVERTON
Des Moines

Why aren't physicians better time managers? They aren't partly because they find it difficult to break habits formed when they started to practice, were not busy, and could give unlimited time to their patients. Resistance to change is a common problem in many medical offices. Obviously, the intent is not to change a procedure just for the sake of change. But there are systems and procedures in use that should be challenged and updated.

Numerous telephone calls can play havoc with a planned day of appointments. Every office should have an adequate number of incoming telephone lines. The telephone company can run a "blocked call" survey for you to determine how many calls do not reach you because of a busy signal. In addition, your telephones should be properly located for efficient service. Touch Tone equipment is now available in most areas. Users claim a call can be placed in one-half the time it takes to dial a conventional phone. For the office with a high volume of outgoing calls to the same parties, automatic calling devices can be purchased where an index number is selected and the call is placed automatically at the press of a button. Intercoms are necessary in almost every office and can be incorporated into your office telephone system. A well-trained assistant should screen all phone calls and put through only those determined to be of an emergency nature or of sufficient importance. This responsibility takes experience, and should not be delegated to the newest member of your staff. Many physicians would be amazed if they knew how their phone calls were being handled. Rules and guidelines must be developed with examples to determine what calls should be intercepted and which ones should be referred immediately.

In the business office the pegboard system for a daily record of charges, payments and control of accounts receivable is typically most efficient. Time is saved by creating a number of forms in one writing and with less likelihood of error. In some extremely high volume offices posting machines, electronic posting machines or computer billing may be practical but the high cost must be justified in time or labor saved.

Good dictating equipment is becoming a necessity in medical offices. Whether or not patient histories are dictated is a personal preference but more physicians would dictate if they gave it a fair trial. The reason is simply that you can dictate faster than you can write. You save time too because the resulting completeness and legibility of your histories will enable your assistant to complete insurance forms without questions. Skillful dictation comes with practice. There are many excellent brands of dictating equipment on the market.

Copy machines, electric typewriters for increased secretarial output, mailing equipment, up to date filing equipment including color coding of histories are other examples of timesaving equipment and systems. The increasing use of disposables prepackaged and ready for immediate use is yet another economical time saver.

Forms of a timesaving nature include standard replies to routine requests for information, standard insurance forms, printed instructions to patients, new patient registration forms, and patient history questionnaires.

In considering methods and means of organizing your day don't neglect your appointment system. You should have an appointment book flexible enough to allow exact time for your common procedures. If you need 45 minutes for a new patient don't allow 30 minutes in your appointment book. If you can't get into the office until 10 a.m., don't schedule patients for 9:30. Analyze your appointment book frequently to improve future scheduling. To help you keep on schedule have your medical assistant notify you when you are running behind. A copy of the day's schedule in your consultation office or work station will help keep you posted. If you are constantly waiting for exam rooms to be cleared and refilled you may need to add more exam rooms.

When purchasing equipment or changing an office routine or procedure, weigh the advantages and disadvantages of making the change. Seek outside advice if you are in doubt. If the contemplated change will increase your expenses it must be justified in time savings, increased benefits to your patients or ease of practice for you.

Finally, one of the best timesaving tips for a busy physician is delegation of duties to others.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

Medical Meetings

CONTINENTAL U. S.

June 1-4 **Postgraduate Course on Selected Topics in Pathophysiology of Clinical Gastroenterology sponsored by American College of Physicians, University of California,** San Francisco Medical Center, San Francisco.

June 7-11 **56th Annual Convention of Catholic Hospital Association,** Atlantic City.

June 7-11 **Postgraduate Course on Internal Medicine sponsored by American College of Physicians,** University of Cincinnati Medical Center, Cincinnati.

June 10-11 **Postgraduate Course in Dietetics sponsored by Cleveland Clinic Educational Foundation,** Cleveland.

June 14-16 **American Neurological Association,** Shoreham Hotel, Washington, D. C.

June 19 **Conference in Learning Disabilities sponsored by American Association of Ophthalmology and New Jersey Education Association,** Dennis Hotel, Atlantic City.

June 19 **AMA Conference on Revised JCAH Hospital Standards,** Chalfonte-Haddon Hall, Atlantic City.

June 20-24 **American Medical Association,** Chalfonte-Haddon Hall, Atlantic City.

June 21-26 **17th Annual General Practice Review sponsored by University of Colorado School of Medicine,** Estes Park, Colorado.

June 22-23 **Annual Meeting American Diabetes Association,** Sheraton-Palace Hotel, San Francisco.

July 5-8 **Postgraduate Course on Ophthalmology sponsored by University of Colorado School of Medicine,** Colorado Springs.

July 11-14 **Postgraduate Course on Pediatrics sponsored by University of Colorado School of Medicine,** Aspen.

July 11-22 **Summer Program on Human Sexuality sponsored by Institute for Sex Research,** Indiana University, Bloomington.

July 12-24 **Postgraduate Course on Chronic Diseases of Childhood,** Stanford University School of Medicine, Palo Alto.

July 16-17 **25th Annual Rocky Mountain Cancer Conference,** Brown Palace Hotel, Denver.

July 20-24 **Postgraduate Course on Internal Medicine sponsored by University of Colorado School of Medicine,** YMCA Conference Center, Estes Park.

July 22-23 **2nd Annual Seminar on General Surgery sponsored by Colby College,** Waterville, Maine.

July 22-24 **Postgraduate Course on Dermatology sponsored by University of Colorado School of Medicine,** Denver.

July 26-29 **Recent Advances in Rheumatic Diseases sponsored by American College of Physicians,** Stanley Hotel, Estes Park.

July 29-31 **Postgraduate Course on Inflammatory Disease of Gut sponsored by American Gastroenterological Association,** Aspen.

July 29-31 **Postgraduate Course on Chronic Inflammatory Disease of Gut sponsored by American Gastroenterological Association,** Aspen.

ABROAD

June 28-July 2 **Postgraduate Course on Advances in Internal Medicine sponsored by American College of Physicians,** Banff School of Fine Arts, Banff, Alberta, Canada.

July 18-23 **3rd British Academic Conference in Otolaryngology,** Edinburgh.

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Woman's Auxiliary News

President's Inaugural Address

Thank you for the honor you have bestowed upon me today. I will wear the president's pin with much pride this year. If I could be granted two wishes, one would be to transmit to each of you the enthusiasm and worth I feel for Auxiliary work. The second would be to transfuse you with the thought that it is a privilege and an honor to be a member of the Woman's Auxiliary to the Iowa Medical Society. Those of us fortunate enough to be members of an organized county auxiliary realize we are drawn together by many common goals. We have a never-ending duty to enhance the physicians' image in our communities.

Doctors' wives are a minority group. When you compare our national membership of 90,000 to the 11 million-strong Federated Woman's Club we pale by comparison, statistically speaking. Yet, the Woman's Auxiliary to the AMA was selected as one of the five most influential women's organizations in America. We are small in number, but mighty in capabilities and accomplishments.

Our heritage began in 1907 in Oklahoma when it was still an Indian Territory. A small group of women decided they had a common bond and should form a club. They drew up the following constitution: "To promote friendly relations among the doctors' wives of Pottawattamie County and to foster the interests of the medical profession." This is our reason for existing as an organization today—and if we could involve every eligible physician's wife, our horizons would be unlimited.

We can be proud of our AMA-ERF contributions, and we should continue to give this project top priority. ERF has assisted some 43,000 undergraduate medical students with guaranteed loans. This is becoming more and more important inasmuch as an increasing number of medical schools are using the accelerated programs, and thus it is

1971-1972 AUXILIARY OFFICERS—New officers were installed April 27 by Mrs. Chester Young, North Central Regional Vice President of the National Auxiliary. Seated are Mrs. P. H. Tenney, Independence, President, and Mrs. R. L. Wicks, Boone, President-elect. Standing, left to right, are Mrs. C. R. Sokol, State Center, Councilor, District VI; Mrs. M. D. Hayden, Cherokee, First Vice President; Mrs. J. F. Veverka, Prairie City, Treasurer; Mrs. A. T. Austin, Ottumwa, Second Vice President; Mrs. J. L. Mochal, Independence, Councilor District VII; Mrs. G. B. Bristow, Osceola, Recording Secretary, and Mrs. H. G. Weis, Davenport, Councilor, District VIII. Mrs. J. A. Bullard, Decorah, Councilor, District I; Mrs. C. W. Graham, Spirit Lake, Councilor, District III; Mrs. R. J. Martin, Cherokee, Councilor, District IV, and Mrs. E. E. Luvstad, Osceola, Councilor, District X, were unable to be present.

almost impossible for students to work and supplement their finances. Each $10 contributed to the program guarantees a loan of $125. Another prime function of the ERF is medical school funding; this money is used on a non-restrictive basis. Our own Dean Eckstein has said this: "The flexibility provided by these funds is unequalled, and the return for each dollar expended far exceeds the proportion which these funds represent of our total college budget. With funds from AMA-ERF we are able to capitalize immediately upon emerging opportunities, as well as provide a source of funds for those costs which may not be readily assigned elsewhere." Our medical schools are desperately trying to comply with the insatiable demands of the public, the federal and state governments for more physicians. At the same time, it is no secret these schools are in financial straits. Our efforts and our donated funds will help ease this situation.

I would hope many of you will continue the Yucatan Project as one of your international health activities. We have had many letters of gratitude from people who have benefited from the supplies and drugs the medical auxiliaries have sent. It is gratifying to know these items have been used to improve the health care of our fellowmen. Our officers and auxiliaries did a beautiful job of launching the balloon last year—I hope we will keep it flying high.

The medical profession realizes lay people play an important role in health care. Volunteers are most important in the success of community health activities, immunization programs, hospital administration and other aspects of health care programs. In order to recognize the importance of these lay people, the Iowa Medical Society has established the volunteer health service award. As you meet people in your various auxiliary activities, be on the alert for worthy candidates for this award.

And so, if my two wishes are granted these and many, many more tasks will be accomplished during the coming year.

I am grateful to my husband for making it possible to share the life of a physician who puts the betterment of humanity above all else. This is a privilege. Thank you for the confidence you have placed in me by electing me to be your State President. With the help of each and every one of you we will have a meaningful and rewarding year.

RUTH TENNEY

Auxiliary Guests at Convention

Meeting and greeting new and old friends is one of the privileges of attending the Iowa Medical Auxiliary Convention.

The exchange of ideas in regular and informal sessions with committee chairmen, board and county members is a Convention benefit that provides continuity and enthusiasm to Auxiliary life.

Enthusiasm and exchange were heightened this April by the presence of Mrs. D. G. MacMillan, President-Elect, and Mrs. Leona K. Chesemore, Executive Secretary, from Wisconsin.

The cohesiveness of a multi-level organization depends each year on the visitation of a national representative. Mrs. Chester (Lela Mae) Young, North Central Regional Vice President, came from her home in Kansas to infuse our sessions with warmth and wit. (Her picture and biography appeared in the March issue of THE NEWS.)

When Mrs. Howard Ellis introduced our national guest at the 42nd Annual Meeting she used these words: "When problems occur and pessimism prevails she is ever there to offer her co-workers words of encouragement, to share her knowledge, and to lend a needed helping hand. As her many, many friends will tell you—to know her, is to love her—to work with her, is to be blessed."

National Representative's Message on Change

Mrs. Chester Young brought greetings from the National President, Marjorie Robertson, and the President-Elect, Patty Lee, and from the Board of Woman's Auxiliary to the American Medical Association. She said efforts put forth in Iowa to further the aims and objectives of the national organization are much appreciated and admired.

"Today," continued Lela Mae, "we can hardly have a conversation of any length without a statement about CHANGE. Change in morals, change in hair length, change in fashions, change in the attitudes of the young, change in the environment and medicines and treatments."

Whereupon she quoted from one of her old cookbooks, published in 1845 entitled, 7000 RECIPES AND FACTS, which amused her audience immensely.

Mrs. Young continued: "There's no need to tell you that the treatment for colds and lame backs has changed, but I think I need to talk about an important change in the type of health care delivery and how it affects our husbands and us. This is of the greatest interest to everyone in America at this time. It is generally agreed that some form of national health insurance will be adopted in the near future. Knowing that physicians should have a constructive part in the planning of such a program, the AMA has helped make a plan called the Health Care Insurance Act of 1971, or Medicredit.

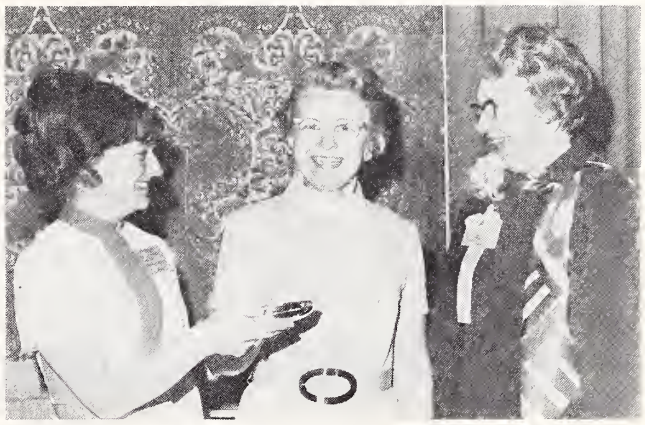
"Medicredit is designed to give equal access to high quality medical and health care regardless of ability to pay. It will provide total coverage for those with no income or low income; partial coverage for those with some income. Catastrophic illness will be covered for all. Medicredit will give a financial incentive by allowing tax credit. It does not require restructuring the entire health care system. Medicredit does not do away with freedom of choice. Each patient will be free to choose his physician; each physician will be free to decide how he will conduct his practice. It is hoped that every doctor's wife will study this proposal and take time to let her senator and congressman know her feelings about it. Medicredit does have the approval of many legislators but your favorable opinion will reinforce their belief in it and help persuade them it is the most desirable plan."

ON AMBITIONS AND VISIONS

"It will soon be the beginning of a new Auxiliary year, and I would like to tell you of the goals of the National Auxiliary for 1971-72. MEMBERSHIP will be the main project. No one can dispute the fact that the more members we have the more women we will have working for improved health of the family and community. Only Auxiliary members can make known the worth of our organization. Every doctor's wife should know that our Auxiliary should be number one in her life for it is the one organization that is actually involved with her livelihood. The only one that is related to her husband's consuming interest, medicine. We are striving for 100,000 members by 1972. Our membership is now under 90,000 so this is a high goal. We will really have 'done something' if we can reach 100,000. I believe we can do it if every member is an active, enthusiastic, believer in what you're doing.

"We must continue to raise funds for the AMA-ERF as the need for doctors does not lessen. Many persons are dependent on loans from AMA-ERF to continue or even begin their medical educations. The AMA-ERF has a new plan to provide interest subsidies to deserving, needy students. The program will be conducted in cooperation with U. S. medical schools, which will be asked to provide grants and scholarships for the first two years of medical school with AMA-ERF guaranteeing loans on an interest free basis for four years. The borrower would assume payments during his internship and residency and have up to 10 years following completion of training to repay the loan.

"We could talk about many other objectives of our organization but you know them well in your State. Service has been the key word that has helped us to implement our objectives. Marjorie Robertson's words about service are these: 'I believe that the keynote of our Auxiliaries is Service. Service to our families, our communities and our country. No single word means what service means.'



AWARD WINNER—Mrs. Harold L. Fisher, Boone (center), received a silver bowl in recognition of her outstanding volunteer health service work. Mrs. Dale Wassmuth, Sioux City, chairman of the Volunteer Health Service Committee, presented the award to Mrs. Fisher at an Auxiliary luncheon on April 27. Mrs. Leland H. Prewitt, Ottumwa (right), the retiring president, observes the presentation. Mrs. Fisher has been active in the Gray Lady program of the Red Cross for nearly 20 years, in addition to many other community health-related activities.

"As we serve we must always come back to the individual—you and me. And we must remember that as we serve we also influence.

"Doctors' wives are very special people who have a particular and real opportunity to influence others. But we should always be reminded that we influence most when we do it unwittingly.

"Remember the lesson taught by Robert Browning in PIPPA PASSES? The story of the young girl in Asolo in northern Italy. She works in a silk mill and has one holiday in a whole year. To celebrate that day she takes a walk through the town in the sunshine and as she walks she sings of God and his love. Her refrain 'God's in his heaven—all's right with the world' is heard by many as she passes beneath their windows. And wherever she is heard, the refrain causes people to stop and think and reconsider their actions. Like Pippi, the mill girl, the doctor's wife is most often heard and seldom seen by the people who need and call her husband. But our character shines through the voice and spoken word and our influence can be felt.

"If our ambitions and visions were placed in a capsule they would be:

PROGRESSIVE CHANGES—those for purpose, not for change alone.

MEDICREDIT—a workable, reasonable health care plan.

MEMBERSHIP—100,000 members by 1972.

AMA-ERF—Money to help young people pursue medical education.

SERVICE—to home and community, and

Like Pippi, each of us can have and be a great personal INFLUENCE for good."

Buchanan County to Host Board

A cordial invitation has been extended by Buchanan County to attend the summer meeting of the 1971-72 Medical Auxiliary Board in Independence on July 12 and 13.

Mark your calendars NOW and watch for more details about the meeting that will include a tour of the Children's Unit of the Mental Health Institute and a discussion of the treatment center by Dr. Richard Bealka, Child Psychiatrist.

The afternoon meeting on July 12 will be an "Orientation for You and Me"—for officers and committee chairmen.

Planning a Family Vacation?

Here is a suggestion: If you are considering a summer trip that includes the whole family why not attend the 48th Annual Convention of the American Medical Association, June 20-24, in Atlantic City, N. J.? There will be something of interest for all ages.

Registration and exhibits will open June 20 at 10 a.m. and close June 24 at 5 p.m.

A cordial invitation is extended to all members of the Woman's Auxiliary to the American Medical Association to participate in all social functions and to attend the general meetings of the Auxiliary.

A special program combining the area's seaside and boardwalk activities with fascinating historic sightseeing has been planned for pre-teens and teenagers (6 to 17 years) attending the convention.

See the May issue of MD'S WIFE for particulars and use the coupon to make advance reservations.

Awards

The AMA-ERF Chairman has announced the following awards to county auxiliaries for their support of this project. Award certificates have been forwarded as follows:

MARION COUNTY FOR GAIN IN CONTRIBUTION	**$ 145.40**
NORTH LEE FOR HIGHEST PER CAPITA CONTRIBUTION	**$ 25.26**
POLK COUNTY FOR THE LARGEST CONTRIBUTION	**$1,057.55**

Thank You

In the afterglow of our 42nd Annual Meeting let me say once again how much I appreciate the real effort each of you exerted to produce what Lela Mae Young called one of the most successful state meetings she had attended.

The registration and reservations were handled so smoothly, the hospitality was so gracious and the decorations so beautiful, thanks to our committees and to Mrs. Westfall. We are indebted to Scott County for arranging for Mrs. Iten to appear. I heard Mrs. Iten at the Scott County November meeting when they hosted members of the police and fire auxiliaries. She was superb on that occasion but Kay Kehoe and I agreed she was better April 27. We are indebted too, to the five speakers who gave their time and energy to bring us new ideas and information. Hazel and the IMS staff did a great job preparing our packets and assisting us with all of the details.

I appreciate the notes you have written and want to wish you all a happy, happy summer.

MARION PREWITT

Supplies for Yucatan

Jeanette Westfall, Secretary of Iowa Partners of the Alliance, has just given us *new information* on the shipment of supplies to Yucatan.

It is now necessary to have items delivered by the donor to the warehouse at the State Fairgrounds in Des Moines, as was done prior to the announcement made at the Auxiliary Annual Meeting in April. Deliver your contributions to Al Kitzky at the Cattle Barn, or call Victor Cardenas, M.D., if you need a further contact in Des Moines. If Boone is a more convenient delivery point the Iowa Alliance also has a warehouse in the Boone Armory Building. Supplies and equipment may be delivered to the Boone warehouse any hour of the day or night.

By-Laws Review

A pre-convention Board meeting recommendation to study and re-write the By-Laws of the Iowa Medical Auxiliary was passed at the opening session of the 42nd Annual Convention.

Mrs. Phillip Tenney, President, appointed a committee composed of Mrs. R. J. Foley (Chairman), Mrs. M. E. Olsen, Mrs. Howard Ellis, Mrs. E. M. Smith, and Mrs. J. F. Veverka to clarify and simplify the existing regulations.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

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President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

Personals

Dr. Robert C. Larimer, a Sioux City internist, was guest speaker at a recent diabetic clinic at the Floyd Valley Hospital in LeMars. Dr. Larimer lectured on both short and long term complications of diabetes.

Dr. Howard B. Latourette, professor of radiology at The U. of I. College of Medicine, discussed the medical aspects of cancer at an area clergy conference in Sioux City. Thirteen northwest Iowa counties were represented. The conference was sponsored by the Iowa Division of the American Cancer Society.

Dr. J. R. Jaquis, of Cedar Falls, was guest speaker at a recent meeting of the Black Hawk Chapter of the American Association of Medical Assistants. Dr. Jaquis presented a lecture and film on his services as a Baptist missionary in Pakistan.

Dr. Gordon Fletcher will begin the private practice of ophthalmology in Ottumwa this summer. Dr. Fletcher has practiced in Calgary, Alberta, Canada the past year and a half. A native of Alberta, Canada, he completed his pre-med studies at Wheaton College in Wheaton, Illinois, graduated from the Alberta Medical School in 1958, completed his internship at Butler County Hospital in Butler, Pennsylvania, and served his residency in ophthalmology at Veterans Hospital in Pittsburgh.

Dr. R. F. Deranleau, of Perry, was the recipient of the Perry Kiwanis Club's 1971 Community Service Award presented at the annual Farmers-Businessmen's banquet. The Kiwanis plaque is awarded to an outstanding individual from the business or professional community. A Perry physician since 1949, Dr. Deranleau is chief of staff at the Dallas Community Hospital, a past president of Perry Rotary Club, board member of Perry Industries, Inc., president of Perry Community School Board, past exalted ruler of Perry Elks Club and director of Iowa Cancer Society.

Dr. Leo J. Plummer has opened an office for the practice of ophthalmology at the Des Moines Medical Center. A 1964 graduate of The U. of I. College of Medicine, Dr. Plummer served his residency in ophthalmology at the Mayo Clinic in Rochester, Minnesota.

At the Spring meeting of the Iowa Clinical Surgical Society, **Dr. Geoffrey Bennett,** of Oskaloosa, was named president; **Dr. John R. Walker,** of Waterloo, president-elect; and **Dr. Keith Campbell,** of Oskaloosa, secretary-treasurer. The following Ottumwa physicians hosted the meeting—**Dr. Kenneth Lister, Dr. Glenn Blome, Dr. Herb Wormhoudt, Dr. Stephan Fox, Dr. Loran Coppoc,** and **Dr. Robert Meyers.**

Dr. Herbert B. Locksley, associate professor of surgery at The U. of I. College of Medicine, has been elected president of the Central Neurosurgery Society, which is composed of some 100 neurosurgeons practicing within a radius of 250 miles of Chicago. Dr. Locksley served as vice president and scientific program chairman this past year.

Dr. W. J. Moershel, a Cedar Rapids psychiatrist, participated in a recent panel discussion on drug abuse at the Cedar Rapids YWCA. Dr. Moershel told those in attendance Cedar Rapids and Des Moines were the only two Iowa cities with FDA permission to use methadone and that it would be administered at a special problems clinic at CR Mercy Hospital. The clinic is being developed by the drug abuse committee of the Linn County Medical Society.

Dr. Robert E. Rakel, head of the Department of Family Practice at The U. of I. College of Medicine, was guest speaker at the May meeting of the Wright County Medical Society. Dr. Rakel outlined the new concept of family practice, his plans for the Department of the University, and also the part which may be played by towns like

Fort Dodge and Mason City in future residency programs.

Dr. Paul Ferguson, of Lake City, was guest speaker at a recent meeting of the Calhoun County Association for Retarded Children. His topic was "The Problem Child."

Dr. George N. Bedell, professor of internal medicine at The U. of I. College of Medicine, has been named to the council of the American Medical Association's Section on Diseases of the Chest. Dr. Bedell is one of three members of the American Thoracic Society named to the AMA's seven-member council. A past president of the Iowa Thoracic Society, Dr. Bedell is now a member of the executive committee of the American Thoracic Society and president of the Iowa Tuberculosis and Respiratory Disease Association.

Dr. Richard Bealka, director of the Cromwell Children's Unit at the Mental Health Institute in Independence, has been awarded an honorary lifetime membership by the Iowa School Psychologists Association. Dr. Bealka was cited for his support of and significant contribution to the field of school psychology.

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Recent presentations by faculty members of the Department of Surgery at The U. of I. College of Medicine include: "Patterns of Thermal Injury from Clothing Fires," **Dr. Charles E. Hartford,** American Burn Association in San Antonio; participant in symposium on "Medical Management of Subarachnoid Hemorrhage from Intracranial Aneurysm," **Dr. Herbert B. Locksley,** American Association of Neurological Surgeons, in Houston; "Management of Head Injuries," Colorado Academy of General Practice, in Pueblo; and "Bile Salts Producing Stress Ulcers During Shock," **Dr. Lawrence DenBesten,** American Federation for Clinical Research in Atlantic City.

Dr. C. F. McClure, of Decorah, was the guest speaker at the annual meeting of the Northeast Iowa Mental Health Center.

Dr. Helen Barton, assistant clinical director at the Mental Health Institute in Independence, was the guest speaker at the annual dinner meeting of the Tama County Mental Health Association. Dr. Barton spoke on mental illness in the adult.

Dr. Michael E. Korns, associate professor in the Department of Pathology at The U. of I. College of Medicine, has been named a Fellow of the American College of Cardiology.

Dr. Howard Beatty, of Creston, recently presented a program on careers in the health field for a group of Creston High School students interested in forming an Explorer Scout vocational exploration division program. The vocational exploration project is sponsored by the Creston Kiwanis Club.

Dr. William B. Bean, Sir William Osler professor at The U. of I. College of Medicine, was a recent guest speaker at meetings in Virginia and New York. At Sweet Briar College in Virginia, he delivered the "Friends of the Library Lecture." His topic: "Walter Reed: The Influence of Women in His Life." At the University of Rochester Dr. Bean participated in a conference on "The Patient, Death, and the Family." His subject: "A Physician Queries Prehistoric and Historic Views of Death."

Dr. William A. Sybers, a Fort Dodge pathologist, was elected president of the Webster County Tuberculosis and Health Association at a recent annual meeting in Fort Dodge. Dr. Sybers succeeds **Dr. William C. Robb.** Other Fort Dodge physicians elected were **Dr. Otto N. Glesne,** vice

president; **Dr. J. J. Landhuis,** community service; **Dr. F. D. Lawson,** legislative; **Dr. A. P. Echternacht** and **Dr. R. E. Woodard,** medical representatives.

Dr. Robert D. Rowley, a Burlington surgeon, has been appointed Des Moines County medical examiner.

Dr. John McGee, of Fort Madison, was awarded a certificate of recognition for postgraduate study by the American Fertility Society at their annual meeting in New Orleans. Dr. McGee has been a Fellow in the Society since 1965.

Dr. Jerry King, who is completing his internship at Broadlawns Hospital in Des Moines, will join the Medical Clinic in Nevada July 15. Dr. King will be associated with **Drs. Robert Eggers** and **David Stearn.** A native of Hartford, Dr. King received the M.D. degree at The U. of I. College of Medicine in 1970.

Dr. Robert Merrick, of Guttenberg, was the guest speaker at a recent meeting of the Guttenberg Rotary Club. Dr. Merrick told members that the Guttenberg area has far fewer social problems than are to be found in many parts of the country. Dr. Merrick previously has lived in mettropolitan areas of California and at Anchorage, Alaska. Dr. Merrick praised a newly installed "hot line" which provides anonymous counseling for people with problems of any kind.

Dr. Earl DeShaw, of Monticello, spoke at a special Iowa County meeting of all officials and people interested in the health field. Dr. DeShaw is chairman of the Hoover Health Planning Council which covers Iowa, Benton, Jones, Delaware, Johnson, Linn, Cedar and Washington counties. He informed the group of the total development of health planning in Iowa and the United States.

Dr. Bart Ibarra, Jr. has opened an office in Dyersville for the practice of medicine and surgery. Dr. Ibarra received the M.D. degree at the University of the Philippines and interned at Good Samaritan Hospital in Cincinnati, Ohio. Following his internship, he completed a five-year residency in general surgery at Albert Einstein Medical School at Lincoln Hospital in Bronx, New York. After five years of private practice in surgery, Dr. Ibarra entered military service and has just recently returned from South Viet Nam.

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Dr. Paul A. Nierling, of Cresco, has retired from practice after many years of service to the Cresco community. Dr. Nierling came to Cresco following his military service in World War II.

Dr. Richard Utne, of Mason City, told of his experiences while serving aboard the hospital ship, S.S. Hope, at a recent gathering in Joice.

Dr. E. E. Gamet, of Lamoni, was the guest speaker at an April meeting of the Knoxville Rotary Club. His topic was "The Positive Side of Organized Medicine." **Dr. Dwight A. Mater,** of Knoxville, program chairman, introduced Dr. Gamet.

Dr. Paul M. Seebohm, an associate dean of The U. of I. College of Medicine, has been elected secretary of the council of the American Medical Association's Section on Allergy.

Dr. Dale R. Wassmuth, of Sioux City, was the guest speaker at the annual spring meeting of the Northwest Division of the Iowa Heart Association. Dr. Wassmuth spoke on hypertension and presented a film entitled, "What Goes Up." **Dr. H. E. Rudersdorf,** also of Sioux City and president of the Association, presided.

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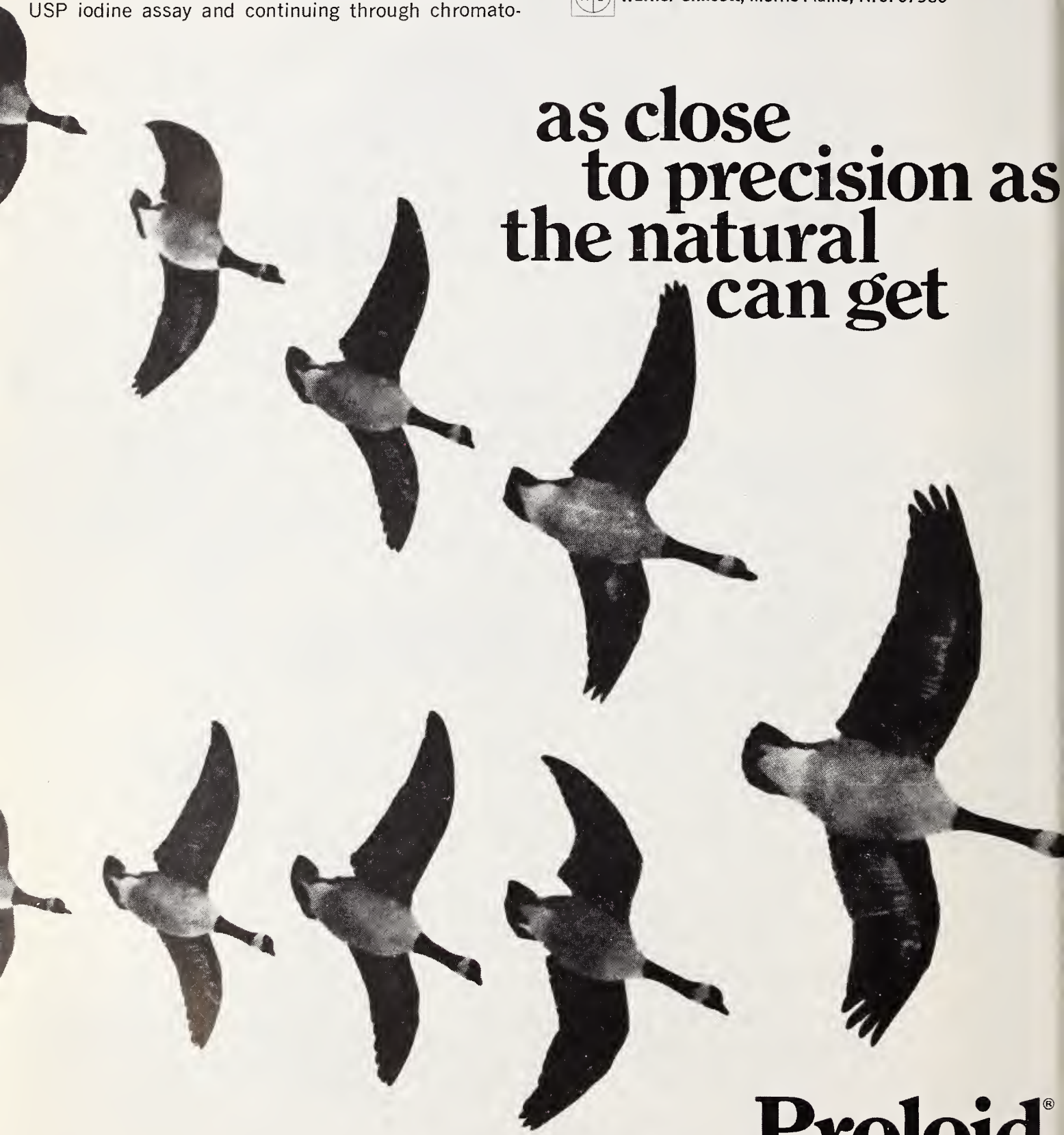

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Chromatographic analysis to standardize the sodium levothyroxine and sodium liothyronine content of Proloid (thyroglobulin) is routinely employed.

The ratio of T_4 and T_3 in Proloid (thyroglobulin) is approximately 2.5 to 1.

Proloid (thyroglobulin) is stable when stored at usual room temperature.

Indications: Proloid (thyroglobulin) is thyroid replacement therapy for conditions of inadequate endogenous thyroid production: e.g., cretinism and myxedema. Replacement therapy will be effective only in manifestations of hypothyroidism.

In simple (nontoxic) goiter, Proloid (thyroglobulin) may be tried therapeutically, in nonemergency situations, in an attempt to reduce the size of such goiters.

Contraindication: Thyroid preparations are contraindicated in the presence of uncorrected adrenal insufficiency.

Warnings: Thyroglobulin should not be used in the presence of cardiovascular disease unless thyroid-replacement therapy is clearly indicated. If the latter exists, low doses should be instituted beginning at 0.5 to 1.0 grain (32 to 64 mg) and increased by the same amount in increments at two-week intervals. This demands careful clinical judgment.

Morphologic hypogonadism and nephroses should be ruled out before the drug is administered. If hypopituitarism is present, the adrenal deficiency must be corrected prior to starting the drug.

Myxedematous patients are very sensitive to thyroid, and dosage should be started at a very low level and increased gradually.

Precaution: As with all thyroid preparations this drug will alter results of thyroid function tests.

Adverse Reactions: Overdosage or too rapid increase in dosage may result in signs and symptoms of hyperthyroidism, such as menstrual irregularities, nervousness, cardiac arrhythmias, and angina pectoris.

Dosage and Administration: Optimal dosage is usually determined by the patient's clinical response. Confirmatory tests include BMR, T_3 ^{131}I resin sponge uptake, T_3 ^{131}I red cell uptake, Thyro Binding Index (TBI), and Achilles Tendon Reflex Test. Clinical experience has shown that a normal PBI (3.5-8 mcg/100 ml) will be obtained in patients made clinically euthyroid when the content of T_4 and T_3 is adequate. Dosage should be started in small amounts and increased gradually with increments at intervals of one to two weeks. Usual maintenance dose is 0.5 to 3.0 grains (32 to 190 mg) daily.

Instructions for Use: The following conversion table lists the approximate equivalents of other thyroid preparations to Proloid (thyroglobulin) when changing medication from desiccated thyroid, T_4 (sodium levothyroxine), T_3 (sodium liothyronine), or T_4/T_3 (liotrix).

Dose of Proloid (thyroglobulin)	Dose of desiccated thyroid	Dose of T_4 (sodium levothyroxine)	Dose of T_3 (sodium liothyronine)	Dose of liotrix (T_4/T_3)
1 grain	1 grain	0.1 mg	25 mcg	#1 (60 mcg/15 mcg)
2 grains	2 grains	0.2 mg	50 mcg	#2 (120 mcg/30 mcg)
3 grains	3 grains	0.3 mg	75 mcg	#3 (180 mcg/45 mcg)
4 grains	4 grains	0.4 mg	100 mcg	
5 grains	5 grains	0.5 mg	125 mcg	

In changing from Thyroid USP to Proloid (thyroglobulin), substitute the equivalent dose of Proloid (thyroglobulin). Each patient may still require fine adjustment of dosage because the equivalents are only estimates.

Overdosage Symptoms: Headache, instability, nervousness, sweating, tachycardia, with unusual bowel motility. Angina pectoris or congestive heart failure may be induced or aggravated. Shock may develop. Massive overdosage may result in symptoms resembling thyroid storm. Chronic excessive dosage will produce the signs and symptoms of hyperthyroidism.

(Treatment: In shock, supportive measures should be utilized. Treatment of unrecognized adrenal insufficiency should be considered.)

How Supplied: ¼ grain; ½ grain; scored 1 grain; 1½ grain; 3 grain; and scored 5 grain tablets, in bottles of 100 & 1000; and scored 2 grain tablets in bottles of 100.

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Dr. E. K. Lowary, of Webster City, participated recently in a panel discussion on community drug information held at the Kendall Young Library in Webster City.

Dr. H. L. Skinner, of Carroll, was re-elected president of the Health Planning Council of Iowa at the organization's annual meeting May 5. Dr. Skinner is the Iowa Medical Society's representative on the HPCI Board of Directors.

Deaths

Dr. Henry G. Moershel, 79, who practiced medicine over 50 years in Homestead, died March 13 at St. Luke's Hospital in Cedar Rapids. Dr. Moershel was a 1917 graduate of The U. of I. College of Medicine. In 1959, he received the highest honor to be awarded by the Republic of West Germany, the German Order of Merit. The presentation was made in recognition of Dr. Moershel's long service to the Amana colonies. He was a member of the American Academy of General Practice, American Association of Railway Surgeons, life member of the Iowa Medical Society and American Medical Association, and an honorary member of the medical staffs of Mercy and St. Luke's Hospitals.

Dr. K. A. Sporre, 78, a former Rock Rapids physician, died at a Fergus Falls, Minnesota, hospital on March 17, following a heart attack. Dr. Sporre attended medical school in Iowa and had practiced in Rock Rapids for many years. He had been on the staff of the Fergus State Hospital since 1959.

Dr. Lawrence A. Block, 73, a Davenport physician for many years, died at his home March 31. A 1922 graduate of The U. of I. College of Medicine, Dr. Block was one of the few athletes to win four major football letters at The U. of I. During World War II, he spent 44 months in an Army special surgical group in Europe and Africa. He was a past president of the Scott County Medical Society and a member of the Iowa Medical Society and American Medical Association.

Dr. L. G. Howard, 75, a Council Bluffs physician since 1921, died in March. A 1919 graduate of The U. of I. College of Medicine, Dr. Howard served his internship at University Hospitals in Iowa City. He was an instructor at The U. of I. College of Medicine and Jennie Edmundson Memorial Hospital in Council Bluffs. Dr. Howard was a World War II veteran, a Fellow of the American Academy of Ophthalmology and Otolaryngology and a member of the Pottawattamie County Medical Society.

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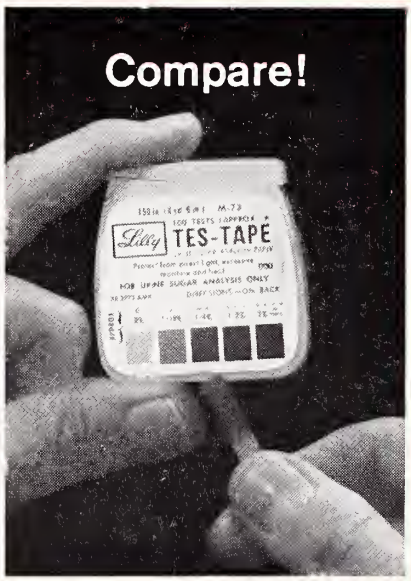
- APPROVAL OF ARTICLES & BYLAWS FOR MEDICAL CARE FOUNDATION
- REQUEST FOR DETAILED ANALYSIS OF HEALTH MAINTENANCE ORGANIZATIONS
- REAFFIRMATION OF OPPOSITION TO CULT OF CHIROPRACTIC



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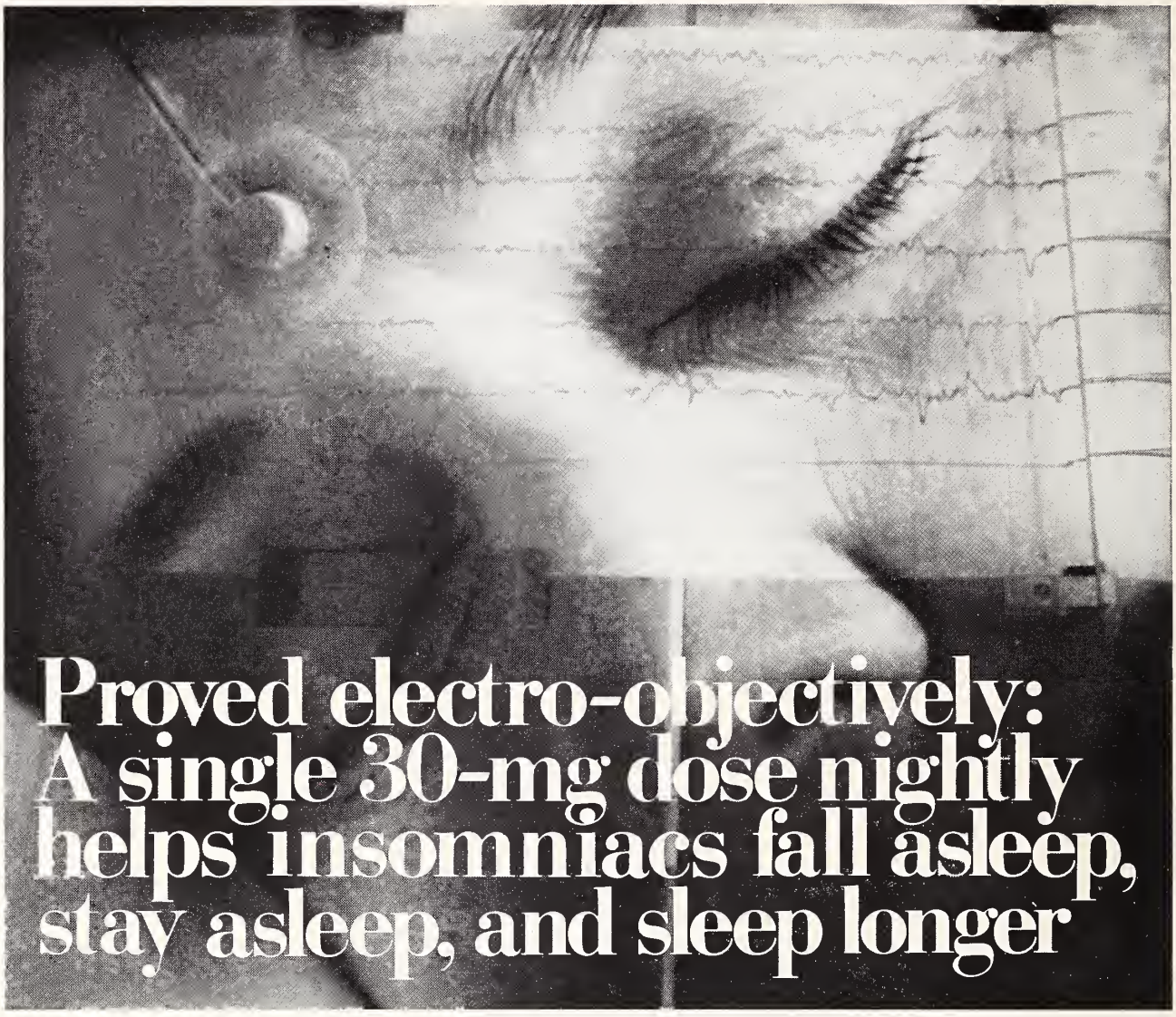

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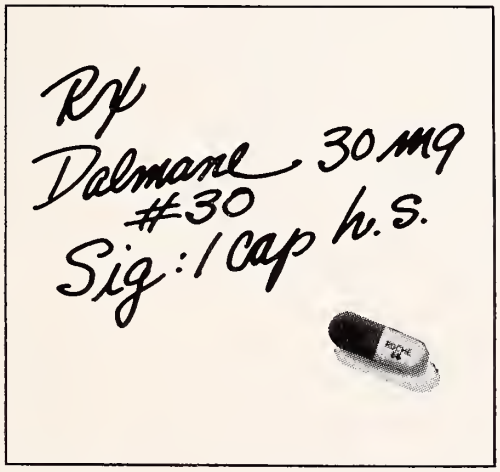
References: 1. Kales, A., *et al.*: "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.*: "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology*, Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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The JOURNAL of THE IOWA MEDICAL SOCIETY

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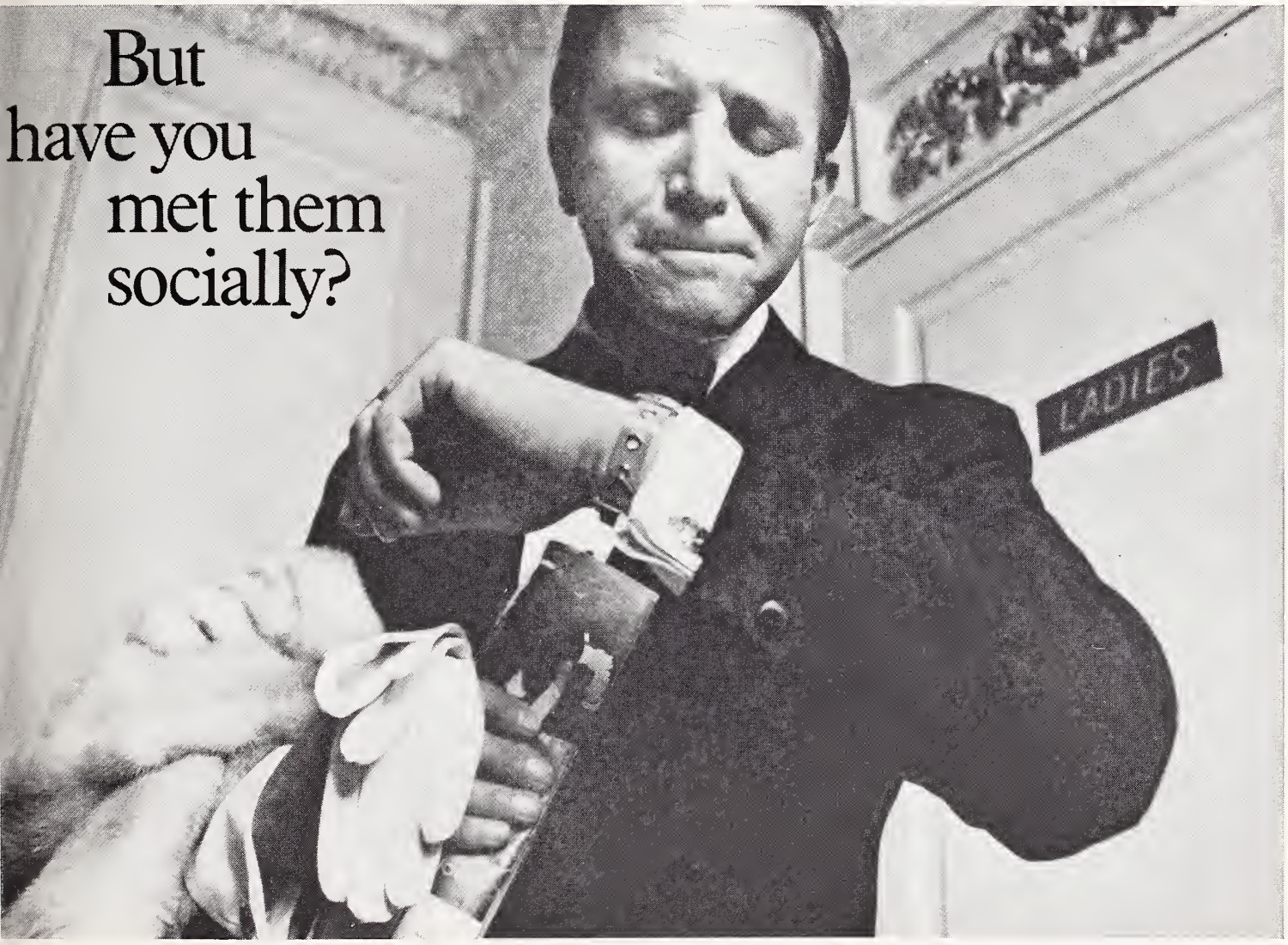

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President's Address

Medical Care at a Critical Threshold

J. H. SUNDERBRUCH, M.D.
Davenport

MEDICAL CARE IS AT A CRITICAL THRESHOLD. The interest of the world's population in health has never been greater. The consumer and deliverer of medical care, the educator and the legislator are pursuing the subject with unprecedented zeal, all are attempting to improve medical care.

No longer can the physician devote his time exclusively to caring for his patients. He must now direct his thoughts and efforts to the economics, the educative process, the political and the public relations aspects of his profession.

The President of any organization has a duty at the close of his term of office to report on his stewardship. The following words are taken from my acceptance speech in April, 1970.

We must associate with medical students, with our medical schools, with osteopaths, with volunteer agencies and with governmental agencies. All of these entities can assist in this period of experimentation. Above all, we must consider the consumer, the patient.

Since that statement was made the following has happened:

We have aided the medical students by extending the Scanlon Medical Foundation/Iowa Medical Society loan program. We have paved the way for a student medical society at the University of Iowa and until this is fully accomplished, we are maintaining close contact with student representatives.

Along with others, we have supported the U. of I. College of Medicine in its efforts to set up a Department of Family Practice. This is well on its way, and I am sure the College, as well as all the practitioners and citizens of Iowa, will be proud of this Department.

We have admitted two osteopathic physicians to the Iowa Medical Society this year and foresee stronger bonds between our professions in the future.

SUPPORT AND COOPERATION

We have continued our support and have given direction to the Health Planning Council of Iowa, and we have provided assistance as well to other voluntary health agencies. Also, we can point to our support of such State organizations as the Health Department, the Department of Social Services, the Office of Comprehensive Health Planning and the Iowa Regional Medical Program.

During the Society's 1970-71 year, we have conducted a professional liability survey in an effort to get a handle on this problem; we have encouraged an increase in Blue Shield usual and customary contracts; we have been involved in changing the CHAMPUS program to usual and customary; we have been active at the Statehouse, providing guidance to the legislators on matters pertaining to health care.

The priority topic this year has been the Foundation for Medical Care, an emerging mechanism little known to Iowa physicians until now. Your President and other officers of the Society have been most active in seeking understanding of the Foundation concept in the belief that it is the means by which the profession can improve the quality and utilization of medical care and also keep the cost of medical care within reason for the citizens of our great State.

We have continued to encourage drug abuse seminars; we have perfected our peer review program further, and more recently, we have supported new State legislation to examine the role of the physician's assistant.

It is for these and other activities that over 90 per cent of the physicians of Iowa are pay-

---

This address was delivered by Dr. Sunderbruch on April 26 at the first of the General Sessions of the 1971 Annual Meeting of the Iowa Medical Society.

ing dues. I am proud to be associated with all of the Iowa Medical Society programs. I am proud of the staff of the Iowa Medical Society which gives efficient and thorough attention to the programs carried on in your behalf. Furthermore, it is this staff which affords the element of continuity, so important to efficient operation.

LOOK TO FUTURE

It is perhaps more exciting and interesting to anticipate the future and forecast what is in store for the medical practitioner and the consumer of medical care in the State of Iowa and across the nation. The following thoughts are based on more than a decade of organizational work in medicine. This work has involved much traveling and association with medical leaders throughout the world, particularly with politicians and legislators, both in Des Moines and Washington. It has been most interesting to discuss with them their concepts of medical care. I am not going to claim that the medical profession or the system of delivery is perfect. There is no aspect of our society that is perfect. I believe quite strongly that those outside the profession, be they consumers, labor leaders, or politicians are not the ones to determine what changes are needed to improve medical care. However their advice and counsel is valued and will be sought increasingly in the future.

Various factors are influencing the medical care delivery system. Consumer demands for quantity and quality are at an all-time high. The influx of new paramedical workers is having and will have a strong impact; accompanying this are other innovations and short cuts to enhance efficiency, hopefully without jeopardizing quality. The migration of more and more new physicians into salaried positions with government, industry and other regulated entities is a discouraging development; we need these medical graduates in the free-enterprise fraternity.

HEW may devise new rules and regulations, the Congress may enact new legislation, still you cannot provide care beyond the energies of the available manpower. The number of physicians must be increased; the regionalization of care must go forward on a deliberate, well-conceived basis, and the paramedical worker must be utilized sensibly.

These foregoing necessities can be accomplished in various ways: by shortening the medical school curriculum, by encouraging further transportation improvements, by amending and making more reasonable laws pertaining to liability, and by putting additional emphasis on preventive care.

REASONS FOR DEMAND

Numerous reasons can be given for the current demands being made of the medical profession: the population and knowledge explosions; the basic affluence of the consumer; the mobility of the population; the fervor of the politicians. Medicare and Medicaid have demonstrated to the social planners hopefully that you can't buy what isn't there. Certainly medicine must accept the fact of change, but changes cannot be made precipitously. And those individuals who desire radical change, be they legislators, labor leaders, welfare workers or whatever, must temper their zeal; they must not lose touch with reality, they must not jeopardize a system which has compiled an enviable record in health care delivery. When they ignore reality and the way of human nature they put us on a direct course to chaos.

I plead for innovations which are tempered by realism. We can work toward and have already made progress in shortening the preparatory time for the medical student, in accepting the physician's assistant, in achieving economic parity for the self-employed professional in relation to his executive counterpart in business and industry, and in the regionalization of medical care. I trust we can proceed in the American way, namely, voluntarily, and not under the threat of dictatorship, be it by an individual or by legislative decree.

In Iowa today 92 per cent of the people have their medical care paid by a third party. This includes the governmental programs. Consequently, the profession, as a whole, is subjected to many pressures. These pressures stem from the activities of small groups of professionals and non-professionals scattered in various parts of the country.

Our medical society has been geared to diagnose and to take care of episodic illnesses, but today we have a new ball game. As a profession we have a key role to play in seeing to it that

citizens have full access to medical care; we must devote full effort in the manpower production, distribution and cost areas, to name a few.

PERSONAL RESPONSIBILITY

What constitutes minimum and maximum care? This is a complex question which remains unanswered. While we can accept the premise that society should encourage access to medical care for everyone, it nonetheless should and must remain a matter of personal responsibility. We cannot guarantee personal health. Smoking, reckless driving, drinking and drug abuse are activities of a personal nature which threaten an individual's good health; these are not under the control of the deliverers of medical care, though the profession is often chastised for its inability to control morbidity and mortality when actually factors such as these, for which individuals should be responsible, are the real culprits.

Other important factors in today's complex medical care equation are the malpractice problem, the matter of continuing education, the important emphasis on family practice, and so forth.

The cost of medical care is a concern of everyone. The profession has said that the medically needy should have help, help which may come from government, from voluntary sources, or from some other point. The debate of the day centers on the methods of underwriting or supporting this help for the disadvantaged. Experimentation should be the direction for the time being, before any kind of national program is instituted. We must seek out the most acceptable means of serving this category of society.

We must continue as physicians to seek and hold our positions as captains of the health care team. We must assure the health insurance industry and other third parties including management, government, labor, and the informed consumer that we can discharge our responsibilities as team captains. We must (1) examine utilization procedures in and out of hospitals, (2) stimulate comprehensive care programs, (3) institute quality controls forcefully, (4) increase continuing education, (5) improve medical school curricula and specialty training programs, and (6) search out and experiment with new methods of delivery.

As we participate in these important activities, we will improve care, be conscious of its cost and help overcome the manpower shortage. I did not say we would accomplish all of these things, I said we would help to do some of these things, and if we do, we will be answering our critics of the day.

Officers Named for Medical Care Foundation

A Davenport physician has been elected president of the newly-organized Iowa Foundation for Medical Care. John H. Sunderbruch, M.D., immediate past president of the Iowa Medical Society, was so named at the initial meeting of the Foundation's Board of Directors June 9.

Other newly-elected Foundation officers are Kenneth E. Lister, M.D., Ottumwa, first vice-president; Elmo E. Gamet, M.D., Lamoni, second vice-president; Enfred E. Linder, M.D., Ogden, secretary; and Thomas A. Burcham, M.D., Des Moines, treasurer.

Additional members of the 21-member Foundation Board are R. L. Wicks, M.D., Boone, J. F. Paulson, M.D., Mason City, J. F. Bishop, M.D., Davenport, L. J. O'Brien, M.D., Ft. Dodge, R. H. Flocks, M.D., Iowa City, V. L. Schlaser, M.D., Des Moines, J. E. Tyrrell, M.D., Manchester, H. G. Marinos, M.D., Mason City, H. E. Wichern, M.D., Des Moines, K. A. Garber, M.D., Corydon, H. E. Rudersdorf, M.D., Sioux City, J. F. Collins, M.D., Davenport, J. M. Rhodes, M.D., Pocahontas, Hormoz Rassekh, M.D., Council Bluffs, C. L. Kelly, Jr., M.D., Charles City, and G. A. Fry, M.D., Vinton.

Formation of the Iowa Foundation for Medical Care was authorized by the Iowa Medical Society at its annual meeting this April. The Foundation will offer medical support to private and public agencies which administer medical care programs. It will exist to develop, promote and encourage the distribution of quality medical services to those served at an equitable cost and in appropriate quantity.

The Foundation will be housed initially at the Headquarters Building of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines.

Inaugural Remarks

Physicians Must Be Alert, Flexible

L. J. O'BRIEN, M.D.
Fort Dodge

PHYSICIANS AS LEADERS of the health care community are being scrutinized by all segments of our population. We must accept new challenges and institute productive alterations in our modes of practice during the coming years.

The increase in medical costs has aroused the concern of consumer groups, labor, politicians and the news media. The increase is real but it has been exaggerated. There has been continuing inflation both in the medical and non-medical areas of our economy. The inflation stems in part from efforts by the providers of medical services to upgrade the wages of allied health personnel. It is also partly due to the monetary policies of the present and past national administrations.

With the entry of third parties (federal and state governments, insurance companies, unions, etc.) into the field of medical care the control of quality and cost becomes a key issue. Profession control must be built in so we can be assured that the health care dollar is buying quantitatively and qualitatively of medical services. Nationally, there is an emphasis on prepaid care. This thrust has become evident in Iowa with the appearance of a legislative proposal to allow non-profit lay corporations to contract for the delivery of health care, to include the hiring of physicians, nurses, dentists, etc., as well as contracting with hospitals and other health facilities. The concept of territorial rights as espoused in this proposal strongly contradicts the beliefs of the profession.

At the federal level health maintenance organizations with capitation provisions are being encouraged by the administration. The Kaiser group has been singled out as an exponent of prepaid care extended into the private sector of medicine. In recent years neighborhood health centers have been established in ghetto areas. There are many other existing groups which have some kind of capitation or prepayment plan for the distribution of medical services.

Manpower, including medical and allied health professionals, is maldistributed; it is short in some areas and over-abundant in others. The same is true of health facilities. In some places facilities are not used to their capacity and in others there is a strain on the capacity.

As medicine progresses we must not only be able to provide access to and distribute high quality care, we must simultaneously offer sound methods of financing and we must provide the manpower.

The gaps and chinks or deficiencies in access, delivery and financing of health care can be filled in. In Iowa private transportation has made patients more mobile so access in this way is much improved. The exodus from rural areas and the great urban competition for business, services and cultural activities are having a great impact not only on the access to qualitative medicine but on the distribution of our state population.

BLUE SHIELD

Blue Shield is capable of performing functions in the marketplace which we as a medical society or foundation are not. The effectiveness of Blue Shield as a review organization, fiscal intermediary, and potentially as a deliverer of services is recognized at the federal level. The future role of Iowa Blue Shield will be determined by each of us, individually and collectively, as we advise and suggest policy which is effective and compatible with our

Delivered at the IMS Annual Meeting, April 28, 1971.

priorities. Constructive ideas for the use and expansion of Blue Shield must come from us and from physician members of the Blue Shield Board. The responsibility of our membership lies in making known to the officers and administrators of Blue Shield the best ways they can support medical care and serve organized medicine.

In the area of financing, Blue Shield must study the impact of health maintenance organizations on the practice of Iowa physicians. The capitation approach must be kept under constant and strict surveillance as we seek to maintain fundamental principles, namely the freedom of choice by patient and physician and payment on the basis of fee for service.

MEDICAL CARE FOUNDATION

As their dynamic role in the delivery and evaluation of medical care increases, foundations will provide experience, cohesiveness and effectiveness to work with physicians, regional medical planning groups and community agencies. Some foundations have fostered prepayment as a viable financing mechanism for governmental programs. These programs have shown that prepayment can work while maintaining or improving the quality of care to the beneficiary, and by providing fiscal control and financial incentives on a fee for service basis with equitable reimbursement to providers. These assure voluntary support and cooperation.

Flexibility must be maintained in the delivery of health care, and professional practices should have incentives built in which promote maximum freedom of practice for the individual physician. In all of these, the matter of communication between individual members of the IMS and the organizational leadership becomes extremely important. Methods must be employed by our Society to inform not only physicians but the public.

Certain members of the Medical Society are going to continue to sharpen their expertise and expand their knowledge of medical foundations. Still others will have to become more familiar with the foundation philosophy and learn about the various methodologies which are used. In this way all will come to see it as a strong influence for good in the distribution of health services to the citizens of Iowa.

The House of Delegates has declared its support of an Iowa Foundation for Medical Care. This instrument must have the opportunity to demonstrate its ability to perform.

PROFESSIONAL LIABILITY INSURANCE

The problem of professional liability is an increasing and vexing one. No adequate solution has been found thus far to halt the growth and expansion of malpractice suits. Money will not solve the problem. Dollar increases in the amounts which are provided in settlement have little effect on decreasing the number of suits. More generous settlements may actually lead to an increase in litigation. Unfortunately many of the malpractice suits are brought against physicians who by training and experience have demonstrated competency in their field and empathy with their patients. It is not necessarily the negligent physician who is brought into court. Various solutions to malpractice problems have been offered. Effective counteraction must be carried forward so the trend can be reversed and mitigated.

Judges and juries particularly must realize that the expectation of the people has been raised beyond the ability of medicine to deliver. Our magazines, newspapers and televisions are forever extolling the great benefits of the biological sciences and the manifold cures for disease. The communications media has raised the expectation of our people to such high levels that we in medicine are not always able to fulfill the expectations. Judge, juries, lawyers and plaintiffs must realize that every person will die some day.

The public must understand that it will be the one to eventually pay the cost of increased malpractice insurance, that the high cost of malpractice insurance will be a deterrent to young physicians entering practice in certain areas or states. Eventually, if the trend continues, talented young men and women will abandon the idea of careers in the health services.

CONCLUSION

Looking into the future, medicine must be alert to the trends which will develop such as

Inaugural Remarks

(Continued from page 387)

peer review organizations, professional standards review organizations, or whatever else appears on the scene. Careful attention must be given to the health maintenance organization as it is interjected into the interstices of the practice of medicine.

Physicians should search their minds and hearts in these changing days, maintain loyalty to the profession, provide services to patients and maintain endurance in the morass of imposed governmental regulations. Medicine, without question, is caught up in a period of stress and the voices of some physicians are raised urging that we suspend fundamental guarantees and take shortcuts or avenues of least resistance as a matter of self-protection and self-preservation.

We must realize that physicians are a strong-willed group of independent thinkers. Reflecting on this, we can visualize solutions to the intermingling monetary, social, economic and medical problems of the day which are less structured than those for other aspects of society. We must utilize the resiliency with which we are endowed to meet crises as they arise. By nature physicians respond slowly to socio-economic problems. This is a part of our role in the democratic society. No week passes without conferences and meetings of physicians who are dedicated to the revision, improvement and reshaping of the method by which health care may be delivered. Medicine must and will survive the crisis of the present and leadership must be provided for this. Medicine must read clearly the signs of the time and respond to these signs with courage, confidence and innovation.

Medicine must have a clear definition of priority and must determine what it can do best within its resources and within policy and tradition. The pattern must encompass the best of our past, the realities of the present, and the best hopes for the future. This is the task facing us; it is one to which all of us must commit our best efforts.

Pre-Sate® (chlorphentermine hydrochloride)

Caution: Federal law prohibits dispensing without prescription.

Indications

Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications

Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings

When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions

In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions

Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration

The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage

Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied

Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information is available on request.

take a new look at Pre-Sate® (chlorphentermine HCl)

the increasingly practical appetite suppressant

low potential for:

- ☐ stimulatory 'jolt'
- ☐ post-therapeutic 'let-down'
- ☐ excessive CNS stimulation
- ☐ drug abuse

Pre-Sate promotes normal patterns of food intake and is a safe, effective supplement to your total program of caloric reduction

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President's Page

Each generation of physicians examines itself critically. This has been done variously, by sharing clinical knowledge, through common and basic research, and by adjusting to the milieu in which medical services are delivered. Scientific attitudes developed in medical training and other determinants of quality medical practice are present in tissue review, medical audit, pathological conferences, etc. Because tissue confirmation of diagnosis is an objective standard, the findings of this committee have exerted great influence. Utilization review has become mandatory with the advent of prepayment, third-party medicine and governmental health programs and is exerting its influence.

Peer review is now emerging as the medical profession's principal means of evaluating the quality and efficiency of services rendered by physicians. The conceptualization of peer review, inherent in hospital practice, is extended through medical practice analysis and medical care evaluation.

We must convince patients, providers, public servants and others that we are best able to carry out unbiased and unprejudiced medical review. To date the peer review experience of the Iowa Medical Society has been educational for reviewer and reviewed, enlightening in many respects and effective in attaining solutions. During the coming months the role of peer review will be debated. Its relationship to professional standards review organizations or whatever will be decided in the near future. Peer review must be developed in a manner which allows the medical profession to have basic control of the quality and quantity facets of health care.

L. J. O'Brien M.D.

President

PROCEEDINGS OF THE 1971 SESSIONS OF THE HOUSE OF DELEGATES

Iowa Medical Society

Des Moines, Iowa—April 25-28, 1971

(Alphabetical Index Can Be Found on Page 449)

SUNDAY SESSION, April 25, 1971

The House of Delegates of the Iowa Medical Society was called to order by the Speaker, L. D. Caraway, M.D., of Monticello, at 9:15 a.m., Sunday, April 25. The House of Delegates approved the taking of attendance by signed registration cards. There were 109 delegates, 8 voting alternates and 16 ex-officio members present.

County	*Delegate*	*Alternate*
Appanoose	E. A. Larsen	
Benton	P. J. Amlie	
Black Hawk	D. E. Conklin	
	R. S. Gerard, III	
	Fred Dick, Jr.	
	C. D. Ellyson	
	G. R. Clark	
Boone	E. E. Linder	
Bremer	V. H. Carstensen	
Butler	F. A. Rolfs	
Calhoun	R. P. Ferguson	
Carroll	J. M. Tierney	
Cass	K. R. Swanson	
Cerro Gordo	J. Y. Hendricks	
	W. V. Wulfekuhler	
	H. L. Brenton	
Cherokee	R. D. Berge	
Chickasaw	J. C. Carr	
Clarke	J. D. Kimball	
Clay	J. E. Kelly	
Clinton	J. L. Monahan	
	G. R. Schmunk	
Crawford	D. J. Soll	
Dallas-Guthrie	P. L. Weigel	
Davis	Richard Schoonover	
Decatur-Ringgold	E. E. Gamet	
	D. E. Mitchell	
Delaware	J. E. Tyrrell	
Des Moines-Louisa	J. F. Foss	
	L. E. Weber, Jr.	
Dickinson	D. F. Rodawig, Jr.	
Dubuque	K. K. Hazlet	
	J. W. White	
Fayette	D. J. Ottilie	
Floyd	D. L. Trefz	
Franklin	R. E. Munns	
Fremont	F. M. Ashler	
Grundy	M. P. Vanden Bosch	
Hancock-Winnebago	L. R. Fuller	
Hardin	T. C. Graham	
Harrison	J. W. Barnes	
Humboldt	Beryl Michaelson	
Ida	J. B. Dressler	
Jasper	R. F. Frech	
Jefferson	G. E. Egli	
Johnson	T. T. Bozek	
	K. R. Cross	
	K. J. Judiesch	
	W. J. Tegler	
	A. S. Norris	
	C. E. Radcliffe	
	E. O. Theilen	
		L. H. Jacques
		C. A. White
Jones	E. H. DeShaw	
Kossuth	R. E. Jongewaard	
Lee	G. C. McGinnis	
	B. E. Peterson	
Linn	R. A. Sautter	
	C. R. Aschoff	
	R. M. Chapman	
	D. D. Morgan	
	R. W. Conkling	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	L. O. Goodman	
	W. T. Shultz	
Mitchell	R. G. Boeke	
Monona	J. L. Garred	
Montgomery	Oscar Alden	
Muscatine	K. E. Wilcox	
O'Brien	J. C. Peterson	
Page	W. G. Kuehn	
Palo Alto		L. E. O'Connor
Plymouth	J. P. Trotzig	
Pocahontas		J. M. Rhodes
Polk	H. E. Wichern	
	N. K. Rinderknecht	
	R. W. Hoffmann	
	J. I. Hostetter	
	R. E. Hines	
	A. N. Smith	
	W. R. Hornaday, Jr.	
	J. L. Fatland	
	M. R. Saunders	
	J. W. Green, Jr.	
		Lester Beachy
		L. O. Ely
		D. J. Schissel
Pottawattamie-Mills	Hormoz Rassekh	
	M. E. Olsen	
	M. L. Scheffel	
		J. W. Mathiasen
Sac	John Hubiak	
Scott	J. F. Bishop	
	D. A. Bovenmyer	
	J. F. Collins	
	J. E. Sinning, Jr.	
Shelby	J. H. Spearing	
Sioux	L. K. Yates	
Story	W. R. Bliss	
	W. A. Bockoven	
Tama	A. J. Havlik	
Union-Taylor	R. H. Kuhl	
Wapello	R. P. Meyers	
	L. E. Coppoc	
Washington	M. L. McCreedy	
Wayne	K. A. Garber	
Webster	J. F. Kelly	
	R. W. Lee	
Woodbury	C. L. Beye	
	H. E. Rudersdorf	
	P. M. Cmeyla	
	R. C. Larimer	
Wright	C. P. Hawkins	

LIAISON DELEGATES

S. P. Leinbach — C. W. Seibert

OFFICERS PRESENT AS EX OFFICIO MEMBERS OF THE HOUSE

J. H. Sunderbruch	L. D. Caraway
L. J. O'Brien	L. W. Swanson
H. R. Hirleman	H. J. Smith
V. L. Schlaser	E. M. Smith
T. A. Burcham	W. M. Krigsten
K. E. Lister	H. L. Skinner
R. L. Wicks	J. W. Eckstein
J. F. Paulson	R. F. Birge

V. L. Schlaser, M.D., Secretary of the Society, moved that the summary of the proceedings of the House of Delegates in Special Session in Des Moines, January 24, 1971, as published in the February, 1971, issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY; the complete report of the Board of Trustees that appeared in the March issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY; and the verbatim transcript constitute the official minutes of the Special Session of the House of Delegates, and he asked for their approval. The minutes were approved.

Dr. Caraway introduced the individuals seated at the head table and welcomed the 23 new voting delegates to the House. He announced the Reference Committee appointees and instructed them as to their responsibilities.

Reports in the 1971 HANDBOOK FOR THE HOUSE OF DELEGATES were approved as published, except the four resolutions beginning at page 71. Dr. Schlaser advised as to the handling of resolutions on file. He explained that resolutions introduced just prior to the opening of the session would be read prior to referral.

(Following are the reports previously published in the 1971 HANDBOOK FOR THE HOUSE OF DELEGATES.)

Reports of Officers

FROM THE OFFICE OF THE SECRETARY

The Secretary of the Iowa Medical Society is responsible for maintaining membership and dues records; conducting the official correspondence, notifying members of meetings, officers of their election, and committee members of their appointments and duties; and preparing minutes of all official meetings of the Society. All methods of communication are utilized to aid the district councilors in organizing and improving the component societies, and in extending the influence and usefulness of the IMS.

The following paragraphs highlight some of the more important activities of the office of the secretary:

HOUSE OF DELEGATES

A special session of the House of Delegates was held Sunday, January 24, in Des Moines to consider a report from the Board of Trustees concerning the formation of a Foundation for Medical Care in Iowa. The special session culminated a series of 16 area meetings at which the President and the Chairman of the Board of Trustees provided information on the structure and purpose of a Foundation. As recommended by the Board of Trustees, the House authorized the establishment of a Foundation. It also directed the Board to draft organizational documents for presentation, review and ratification by the House of Delegates in April.

The proceedings of the 1970 sessions of the House were published in the July, 1970 issue of the IMS JOURNAL. The necessary administrative procedures have occurred to implement the directives of the delegates.

1971 ANNUAL MEETING

Both business sessions of the House of Delegates, reference committee hearings, and the scientific program are scheduled at the Hotel Fort Des Moines.

As a result of the very favorable response to the series of small, informal seminars arranged last year, a similar program has been scheduled for this year's meeting, from 2 until 5 p.m. on Monday, April 26. Attention will be focused on drug abuse, pediatric problems and cancer. In addition, a series of demonstrations and self-assessment quizzes has been arranged. On Tuesday, Iowa's Senator Jack Miller will be the luncheon speaker, and the afternoon program will be devoted to a panel discussion on the use of paramedical personnel.

District councilors have received cooperation from the Headquarters Office in organizing their caucuses in preparation for the Annual Meeting, and in preparing for the meeting of the Nominating Committee.

EXECUTIVE COUNCIL

On February 24 the Executive Council, an interim policy-making body, met for the third time since last April. A fourth session is scheduled prior to the Annual Meeting.

JUDICIAL COUNCIL

The Judicial Council has met three times since last April, and one more meeting is scheduled before April 25. James F. Bishop, M.D., Chairman, has prepared a report which appears elsewhere in the Handbook. The principal responsibilities of the Judicial Council are (1) to approve applications for IMS membership, (2) to consider various questions regarding membership or ethics and, (3) if necessary, to discipline members of the Society.

Members of the Judicial Council and Board of Trustees meet for dinner the evening preceding Executive Council sessions, and then the two bodies conduct their separate business meetings. At the joint dinner, topics of general interest are discussed.

BOARD OF TRUSTEES

There have been ten meetings of the Board of Trustees since the last Annual Meeting, and at least two more are scheduled before April 25. In addition to these sessions, the Board arranged the 16 area meetings to provide information on a Foundation for Medical Care. A special accolade is due Kenneth E. Lister, M.D., Chairman of the Board, and John H. Sunderbruch, M.D., who traveled to all parts of the state to conduct these programs.

The IMS staff maintains almost daily contact with the Chairman of the Board, the President and/or other officers of the Society.

COMMITTEES

Forty-five committees were appointed by the President at the beginning of his term, and four special committees were created during the year to study and make recommendations on problems of immediate interest and concern. Over 80 official committee meetings were held during the past year, and several others are scheduled prior to the Annual Meeting. That total does not include informal sessions between committee members and staff, or telephone conferences.

In addition to official IMS committees, the Society is represented on councils and committees of other voluntary and state agencies, e.g., the Health Planning Council of Iowa, the Iowa Regional Advisory Group, the Advisory Council to the Office for Comprehensive Health Planning, the Inter-Agency Smoking Committee, the Iowa Health Council, etc.

NATIONAL, REGIONAL AND STATE CONFERENCES

The Trustees have attempted to be selective in authorizing Society representation at national, regional and state conferences, recognizing that both gathering and exchanging pertinent information and data is important in keeping abreast of what is occurring in organized medicine, and in maintaining a voice in what should occur. Following is a list of some of the major conferences at which the IMS was represented this past year: American Medical Association—Annual and Clinical Meetings, Congress on Medical Education, Continuing Medical Education, Rural Health, Emergency Medical Care, Health Manpower, Communications Institute, Medical/Legal Problems, Medical Ethics; North Central Medical Conference; Health Insurance Association Utilization Conference; Blue Shield Annual Program Conference; Blue Shield Board of Directors Meetings; State Meetings of Allied and Voluntary Health Groups.

IOWA REPRESENTATION AT THE NATIONAL LEVEL

The Society maintains close liaison with the AMA at both the officer and staff level. Several members of the IMS serve on AMA Councils and Committees, including the following: D. F. Ward, M.D., Dubuque, Council on Legislative Activities; C. H. Denser, Jr., M.D., Des Moines, Committee on Quackery; H. J. Smith, M.D., Des Moines, Committee on Government Medical Services; Robert G. Carney, M.D., Iowa City, Committee on Cutaneous Health and Cosmetics; W. C. Keettel, M.D., Iowa City, Residency Review Committee—Obstetrics and Gynecology; Dean M. Lierle, M.D., Iowa City, Residency Review Committee—Otolaryngology; William B. Bean, M.D., Iowa City, Archives of Internal Medicine; and R. H. Flocks, M.D., Residency Review Committee—Urology and Interspecialty Committee.

Four IMS staff members are active in the American Association of Medical Society Executives, and Mr. Donald L. Taylor, the IMS Executive Vice President, is a past-president of that organization. Mr. Taylor also serves on a special Advisory Committee to the AMA Executive Vice President. In January, Mr. Taylor was elected to the Board of Directors of the Professional Convention Management Association.

COMMUNICATION

Information on important actions taken by the Society's Executive Council, Judicial Council, Board of Trustees, and the various committees, are published in the JOURNAL and are described in the IMS REPORT, which is mailed monthly to county medical society officers and delegates. The IMS News Bulletin is utilized to comment on issues of immediate concern.

IMS FIELD SERVICE

The integrated IMS/Blue Shield Field Service Program continues to function effectively, according to comments from physicians throughout the state. Six field representatives, operating in designated areas, confer with county medical society officers and member physicians about problems and projects relating to the Society and Blue Shield. Mr. Eldon Huston, the Society's Assistant Executive Vice President, directs the joint field service endeavor.

WOMAN'S AUXILIARY

The facilities and services of the IMS Headquarters are made available to the Woman's Auxiliary as it develops and implements various projects. Mrs. Hazel Lammey serves as staff secretary to the Auxiliary. The staff also cooperates with the Auxiliary in arranging its Annual Meeting and Board of Directors' sessions, in preparing its annual reports, in maintaining its membership records, and in preparing and distributing the WOMAN'S AUXILIARY NEWS. A recent successful venture was the sponsorship of a continental breakfast at IMS Headquarters for the wives of all of the state's legislators and executive officers.

IMS MEMBERSHIP

Iowa Medical Society membership for 1970 totaled 2,324. Of this number, 153 held active dues-exempt membership as Life Members, Residents, or Members in Military Service, and 53 Associate Members were exempt from the payment of dues. There were 61 counties (in 58 single or two-county societies) in which 100 per cent of the County Society members held membership in the IMS. Physicians ineligible for membership numbered 56, and there were 134 eligible non-members in Iowa. The number of retired or not-in-practice physicians increased to 90. The percentage of eligible physicians who held IMS memberships was 91 for the year.

COUNTY SOCIETIES HAVING 100 PER CENT MEMBERSHIP IN IMS IN 1970

Adair
Adams
Allamakee
Appanoose
Audubon
Boone
Buena Vista
Butler
Carroll
Cedar
Cerro Gordo
Chickasaw
Clarke
Clay
Davis
Decatur-Ringgold
Delaware
Dickinson
Fremont
Greene
Grundy
Hamilton
Hancock-Winnebago
Hardin
Harrison
Henry
Howard
Humboldt
Ida
Iowa
Jackson
Jasper
Jefferson
Kossuth
Lee
Lucas
Lyon
Madison
Mahaska
Marshall
Mitchell
Monona
Monroe
Montgomery
Osceola
Page
Plymouth
Pocahontas
Sac
Shelby
Sioux
Tama
Union-Taylor
Van Buren
Washington
Wayne
Winneshiek
Wright

OFFICIAL ISSUE

The July JOURNAL is designated the official issue and carries the proceedings of the 1971 Annual Session of the House of Delegates of the Iowa Medical Society.

1970 IMS MEMBERSHIP RECORD

County	Active Members	Associate Members	Resident Members on Resident License	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage
Adair	1	..	..	..	..	..	100
Adams	2	..	..	..	..	..	100
Allamakee	8	..	..	..	..	..	100
Appanoose	8	1	..	..	..	2	100
Audubon	3	..	..	..	..	..	100
Benton	9	..	..	1	..	..	90
Black Hawk	117	3	..	3	..	3	97
Boone	17	1	..	..	..	..	100
Bremer	13	..	..	1	..	1	93
Buchanan	14	..	..	6	12	..	82
Buena Vista	11	..	..	..	..	..	100
Butler	6	..	..	..	..	..	100
Calhoun	9	..	..	2	..	1	82
Carroll	21	1	..	..	..	..	100
Cass	9	..	..	1	..	1	90
Cedar	6	..	..	..	..	1	100
Cerro Gordo	67	2	..	..	..	1	100
Cherokee	18	..	..	10	11	..	64
Chickasaw	6	..	..	..	..	..	100
Clarke	6	..	..	..	..	..	100
Clay	9	..	..	..	..	..	100
Clayton	6	1	..	2	..	1	78
Clinton	38	1	..	6	1	1	87
Crawford	9	..	..	1	..	..	90
Dallas-Guthrie	20	2	..	1	3	..	96
Davis	14	..	..	..	..	..	100
Decatur-Ringgold	7	..	..	..	..	1	100
Delaware	7	..	..	..	..	..	100
Des Moines-Louisa	52	1	..	2	..	..	96
Dickinson	6	2	..	..	..	..	100
Dubuque	64	2	..	10	..	..	87
Emmet	12	..	..	1	..	..	92
Fayette	14	2	..	1	..	1	94
Floyd	15	..	..	3	..	..	83
Franklin	5	..	..	1	..	..	83
Fremont	4	..	..	..	..	..	100
Greene	7	..	..	..	..	..	100
Grundy	6	..	..	..	..	..	100
Hamilton	7	2	..	..	..	..	100
Hancock-Winnebago	14	..	..	..	1	2	100
Hardin	12	..	..	..	..	..	100
Harrison	7	..	..	..	..	1	100
Henry	18	..	..	..	6	2	100
Howard	7	..	..	..	..	..	100
Humboldt	6	..	..	..	..	..	100
Ida	2	..	..	..	..	1	100
Iowa	9	..	..	..	..	..	100
Jackson	13	..	..	..	..	..	100
Jasper	21	..	..	..	..	1	100
Jefferson	11	..	..	..	..	..	100
Johnson	261	..	3	31	..	4	90
Jones	11	..	..	2	..	1	85
Keokuk	5	..	..	1	..	..	83
Kossuth	10	..	..	..	..	..	100
Lee	38	1	..	..	..	..	100
Linn	125	9	..	15	..	2	90
Lucas	2	..	..	..	..	..	100
Lyon	5	1	..	..	..	..	100
Madison	4	..	..	..	..	..	100
Mahaska	18	..	..	..	..	..	100
Marion	13	..	..	3	12	2	81
Marshall	40	..	..	..	..	1	100
Mitchell	11	..	..	..	..	1	100
Monona	7	..	..	..	..	1	100
Monroe	3	..	..	..	..	..	100
Montgomery	11	..	..	..	..	..	100
Muscatine	13	1	..	1	1	1	93
O'Brien	12	..	..	1	..	..	92
Osceola	3	..	..	..	..	..	100
Page	20	..	..	..	5	1	100
Palo Alto	9	..	..	1	..	..	90
Plymouth	9	..	..	..	..	..	100
Pocahontas	6	..	..	..	..	1	100
Polk	323	11	3	4	1	28	99
Pottawattamie-Mills	67	..	..	2	3	4	98
Poweshiek	9	..	..	3	..	..	75
Sac	7	..	..	..	..	..	100
Scott	111	1	..	6	..	5	95
Shelby	9	..	..	..	..	1	100
Sioux	11	..	..	..	..	1	100
Story	54	2	..	5	..	1	92
Tama	8	..	..	..	..	..	100
Union-Taylor	15	..	..	..	..	..	100
Van Buren	3	..	..	..	..	..	100
Wapello	41	1	..	1	..	2	98
Warren amalgamated with Polk							
Washington	9	..	..	..	..	2	100
Wayne	2	..	..	..	..	..	100
Webster	52	..	..	1	..	3	98
Winneshiek	12	..	..	..	..	..	100
Woodbury	106	5	..	3	..	6	97
Worth	3	..	..	1	..	..	75
Wright	14	..	..	..	..	1	100
TOTALS	2,265	53	6	133	56	90	91

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AMA MEMBERSHIP

The members of the Iowa Medical Society who were active members of the American Medical Association in 1970 numbered 2,209. (This number includes active members who were dues-exempt because of life membership, residency or military service.) In addition, 53 held associate memberships, and two (working in Veterans Administration Hospitals) held service memberships in the AMA.

The 2,209 AMA memberships in 1970 entitled Iowa to three AMA delegates. In 1970 the Iowa AMA membership was 95 per cent of the total IMS membership.

V. L. SCHLASER, M.D., *Secretary*

REPORT OF THE TREASURER

The following financial statements set forth the fiscal status of the Iowa Medical Society as of December 31, 1970.

The 1970 IMS expenses exceeded income by $2,503.23. Expenses in 1970 were up only slightly from 1969 but income was down by over $5,000, thereby accounting for the loss in 1970.

IOWA MEDICAL SOCIETY

Balance Sheet—December 31, 1970

ASSETS

Current Assets:		
IMS Checking Accounts		$ 20,149.25
IMS Savings Account		500.00
CHAMPUS		5,000.00
Notes Receivable (Baldridge-Beye)		750.00
Prepaid Expenses		1,000.00
Pension and Disability Insurance—Due from Employees		1,565.70
Investments		34,523.92
TOTAL CURRENT ASSETS		$ 63,488.87
Fixed Assets:		
Land		$ 74,216.96
Building	$308,141.16	
Office Furniture & Fixtures	35,373.04	
Less: Reserve for Depreciation	−131,565.00	211,949.20
Net Fixed Assets		$286,166.16
TOTAL ASSETS		$349,655.03

LIABILITIES AND NET WORTH

Liabilities:		
Notes Payable		$ 25,000.00
Mortgage Payable		71,750.47
Accrued Mortgage Interest		1,643.30
Accrued Personal & Property Tax		12,300.00
Deferred Compensation		34,997.81
Deferred Income		27,106.00
Baldridge-Beye Memorial Fund: Note 12-31-70		750.00
TOTAL LIABILITIES		$173,547.58
Net Worth:		
Balance 1-1-70	$178,610.68	
Less: Net Excess of Expenses over Income	−2,503.23	
Balance Net Worth		$176,107.45
TOTAL LIABILITIES AND NET WORTH		$349,655.03

IOWA MEDICAL SOCIETY
STATEMENT OF INCOME AND EXPENSES

For the Year Ended December 31, 1970

Income for the Year 1970:	
Dues—State Society	$314,237.50
Interest on Investments	1,763.36
CHAMPUS	2,648.56
Miscellaneous	786.75
AMA Collection Commission	1,419.25
Total Income	$320,855.42
Expenses for the Year 1970:	
Annual Session (Net)	$ 1,719.59
Council Expense	3,290.67
County Society Services	2,333.39
Depreciation—Building and Equipment	34,200.00
Dues and Subscriptions	2,387.50
Field Services	13,541.53
General Administrative Expense	1,839.06
Insurance	2,758.27
Interest Expense	4,455.75
Journal (Net)	18,212.68
Legal Expense	11,075.00
Lights, Gas and Water	5,005.62
Office Stationery and Supplies	6,527.24
Pension and Disability Insurance	8,030.38
Postage	5,550.63
Repairs and Maintenance	6,843.60
Salaries	99,673.38
Service Contracts—Machines	979.71
Taxes:	
Personal and Property	13,271.95
Social Security/Unemployment	4,924.74
Telephone and Telegraph	7,366.97
Travel—Officer	11,698.50
Travel—Salaried Employees	9,266.07
Trustee Expense	4,317.39
Woman's Auxiliary	1,180.24
Committee Expense	42,908.79
TOTAL EXPENSE	$323,358.65
Net Excess of Expense over Income for 1970	$ 2,503.23

THOMAS A. BURCHAM, M.D., *Treasurer*

BOARD OF TRUSTEES REPORT

The Board of Trustees has met thus far on ten occasions this past year and, as directed by the 1970 House of Delegates, carried out an extensive educational program with respect to the creation of a Foundation for Medical Care in Iowa. It was pleased that the House, meeting in special session on January 24, authorized the establishment of a Foundation, as recommended by the Board. In response to a directive from the House, organizational documents are now in the process of being prepared for presentation, review and ratification by the House of Delegates in April.

Your officers maintain close, almost daily contact with staff in order to keep apprised of important developments relating to the affairs of the IMS.

A detailed supplemental report will be presented to the House in April, which will include an accounting of the various programs implemented by the Society during the past 12 months, the Society's financial status, and other pertinent items.

KENNETH E. LISTER, M.D., *Chairman*

REPORT OF THE IMS JUDICIAL COUNCIL

In 1970 the House of Delegates created a new Twelfth Councilor District, to include all of the counties of the former Fifth District, excluding Polk and Warren. Polk and Warren now make up the entire Fifth Councilor District. This action has increased the Judicial Council to 12 members.

The Judicial Council, in accordance with the Articles and By-Laws, has at each meeting reviewed applications for membership in the Iowa Medical Society. In addition the Judicial Council has attempted to encourage eligible non-members to become active members

of the Iowa Medical Society. The Judicial Council solicits cooperation from county medical society officers in maintaining a membership in the Iowa Medical Society that represents the vast majority of all eligible physicians. Historically, approximately 97 to 98 per cent of the eligible physicians in Iowa have belonged to the Iowa Medical Society.

As part of the Councilor's individual responsibility, many problems and misunderstandings between physicians or between physicians and patients have been referred to a Councilor for exploration.

The Judicial Council has continued to review applications for osteopaths seeking approval under the IMS-ISOPS Evaluation and Enrollment Program. Approval by the IMS Judicial Council is the final step in the Program and permits osteopaths who hold a Physician's and Surgeon's License to be accepted as "individuals with whom it shall not be considered unethical for doctors of medicine to associate professionally."

At the 1970 House of Delegates meeting the Articles of Incorporation and By-Laws were amended to permit qualified osteopaths to become members of the Iowa Medical Society. The Judicial Council at its February meeting reviewed two applications from qualified osteopaths who had been approved at the county medical society level.

In September, 1970, the Secretary of the Judicial Council, E. E. Gamet, M.D., of Lamoni, attended a Medical Ethics Congress conducted by the American Medical Association. Informational sessions of this type are of value to the Judicial Council as it carries forth its assigned responsibilities.

A member of the Judicial Council has been designated to meet with representatives of the medical students at The University of Iowa College of Medicine to discuss implementation of the House of Delegates action permitting student memberships in the IMS. A progress report on this matter will be presented to the April meeting of the House of Delegates.

The Grievance Committee in October 1970 recommended to the Judicial Council that a physician be cited for violation of Articles 3 and 4 of the AMA Principles of Medical Ethics. This physician was felt to be using methods of treatment not founded on a scientific basis. He was regarded as deficient in professional competence, inasmuch as the data available demonstrated overutilization of medical services and excessive and often inappropriate use of parental drugs.

Following a hearing with the physician and his legal counsel, the Judicial Council terminated the physician's membership. Under rules of the Judicial Council, the physician has requested a hearing before the American Medical Association. A hearing is presently scheduled before the AMA Judicial Council this month (March); therefore, the order for termination of membership has been stayed pending the outcome of the AMA Judicial Council hearing.

The Judicial Council has considered many items of business during the past year including:

1. Relationships with specialty groups.
2. Procedures of nomination for IMS election.
3. Choice of physician under Workman's Compensation.
4. Ambulance ordinances as they relate to the practice of medicine.

JAMES F. BISHOP, M.D., *Chairman*

Report of Standing Committees

COMMITTEE ON ARTICLES OF INCORPORATION AND BY-LAWS

As of the publication date of the 1971 Handbook for the House of Delegates, the Committee on Articles of Incorporation and By-Laws has nothing to report. If amendments are proposed prior to the Annual Meeting, the Committee will develop them for presentation to the House of Delegates.

J. F. BISHOP, M.D., *Chairman*

GRIEVANCE COMMITTEE

The Grievance Committee of the Iowa Medical Society was required to hold only three meetings in 1970. We sincerely hope we are safe in assuming that the never-to-be-forgotten doctor-to-patient relationship has improved in recent years in the State of Iowa. In the past, this relationship between a doctor and his patient was disturbed most often by misunderstanding and at times over charges for services. We now have a third party to consider, namely Medicare and Medicaid. Unfortunately, the physician and these governmental programs do not always agree on fees and services. The Grievance Committee has devoted more time and energy in investigating such cases than all other types of grievances combined.

There has never been a rapid turnover in the membership of the Grievance Committee. It is interesting to note that several members have served continuously for nearly 15 years. We wish to extend a thank you to F. O. W. Voigt, M.D., who has courageously served as chairman of the Grievance Committee for many years.

Hopefully, 1971 will be even more peaceful than 1970. Who knows, the time may be near when our organization can be abandoned.

D. O. MALAND, M.D., *Secretary*

COMMITTEE ON HEALTH EDUCATION

During the past year, the major project of the Health Education Committee has been to oversee the production of the *Doctors' House Call* series of radio programs broadcast weekly over WOI in Ames. The IMS has arranged for physicians to be interviewed on health subjects which range from "common foot disorders" to "heart defects in children."

According to reports from WOI, the half-hour program has a large listening audience, and is very well received.

The Society also cooperates with WOI-Television in suggesting health topics and in securing physicians to appear on the "Dimension V" program. The most recent live telecast dealing with a health subject concerned the physical and emotional reactions of persons under stress.

Betty Lou McVay, a producer at WOI/WOI-TV, has expressed an interest in taping and filming interviews with speakers appearing on the scientific program of the 1971 Annual Meeting for use on radio and television. The Committee will cooperate with Miss McVay in this regard. Such a project will have a twofold purpose—i.e., (1) to bring to the public important and up-to-date medical information, and (2) to demonstrate one way in which physicians continue to educate themselves in order to better serve their patients.

As a member of the Iowa Health Council, the IMS was actively involved in arranging the second Statewide Conference on Drug Abuse which was held in Des Moines last fall. It was an outstanding public health education program.

Through the Health Education Committee, the Society continues to secure speakers for both lay and professional groups, as a public service. Several physicians took part in "pre-retirement planning seminars" sponsored by various business and governmental agencies.

The Society also provides on request health information literature and films to physicians, schools, civic organizations, etc.

The Committee continues to maintain liaison with the State Department of Health in the development and implementation of various health education programs.

CRAIG D. ELLYSON, M.D., *Chairman*

NECROLOGY COMMITTEE

The following members of the Iowa Medical Society died during 1970:

	Age
Gaylord R. Andre, Iowa City	58
Louis E. Bees, Bennett	74
Gordon N. Best, Council Bluffs	74
James B. Blair, Cherokee	56
Edgar S. Brintnall, Iowa City	56
Douglas H. Brown, Forest City	68
Amos W. Brunk, Prescott	75
Fred E. Carpenter, Newton	78
John D. Caulfield, New Hampton	69
William H. Clary, Longmont, Colorado	90
George W. Cusick, Davenport	80
Charles E. Decker, Davenport	60
John K. Dickinson, Coralville	39
Leroy M. Downing, Cedar Rapids	91
Theodore J. Greteman, Dubuque	65
Ben C. Hamilton, Jefferson	84
Robert R. Hansen, Marshalltown	87
Ray R. Harris, Dubuque	86
Paul O. Heitzman, Cedar Rapids	58
Christian H. Herrmann, Middle	80
Ralph D. Hunting, Cedar Rapids	56
Wayne A. Johnston, Dubuque	80
Albert J. Jongewaard, Jefferson	78
John W. Jordan, Maquoketa	72
Alfred H. Lekwa, Story City	76
William H. Megorden, Mount Pleasant	56
Claire H. Mitchell, Cincinnati	88
Vernon W. Petersen, Clinton	61
Ray W. Peterson, Clear Lake	73
Maryelda Rockwell, Clinton	61
Edward L. Rohlf, Waterloo	59
George W. Rowney, Sioux City	50
Malcolm A. Royal, Des Moines	88
Geraldine Satrang, Sioux City	49
Robert T. Smith, Granger	71
Isaac Sternhill, Council Bluffs	68
John H. Tait, Des Moines	77
James H. Taylor, Clinton	51
Phillip H. Tenney, Independence	47
John E. Traister, Eddyville	93
A. Fred Watts, Creston	86
William W. Weber, Pomeroy	83
George M. Wyatt, Iowa City	62

COMMITTEE ON LEGISLATION

Several health-related items are under consideration by both the 92nd U. S. Congress and the 64th Iowa General Assembly.

Primary attention is being given by the AMA's Council on Legislation to the various proposals for National Health Insurance. Several bills will be introduced dealing with a national health insurance program. The AMA is sponsoring the Medicredit bill, which establishes a graduated scale of income tax credits to be allowed for the purchase of health insurance.

As in the past, IMS officers in conjunction with representatives of the Committee on Legislation are planning a trip to Washington, D. C., to meet with the Iowa Congressional delegation.

The Iowa Medical Society is following the activities of the 1971 General Assembly, particularly those matters relating to health care. Physicians are kept informed on health items through Legislative and News Bulletins. A complete report of old and new legislative proposals regarding health legislation was provided to the membership as an "In the Public Interest" article in the December, 1970 issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY. As this report is written it is still too early in the General Assembly's session to determine the outcome of legislation dealing with health. A comprehensive report on specific items of legislation will be presented to the House of Delegates as a supplemental report.

J. H. KELLEY, M.D., *Chairman*

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals met last fall with representatives of the University of Iowa College of Medicine and the Iowa Regional Medical Program. Several important items of mutual interest and concern were discussed.

Attention was given to the roles of the IMS, the College of Medicine and IRMP with respect to the development, promotion and coordination of continuing medical education programs. The Committee expressed the view that the Society could and should serve as a prime "motivator" for continuing education, through peer review activities, contacts with county medical societies and hospital staffs, the regional health facilities and whatever other groups which may present themselves.

Richard Caplan, M.D., Assistant Dean for Continuing Medical Education, College of Medicine, represented the Committee at an AMA Conference on Continuing Education last October. He provided a comprehensive report on the program, which covered subjects relating to maintaining professional competency, voluntary self-assessment programs, motivation for continuing medical education, peer review and evaluation as educational tools, and regionalization and continuing education.

Based partly on recommendations developed at the AMA conference, the AMA House of Delegates, meeting in Boston last December, approved a report which, among other things (1) encourages medical societies, in cooperation and in concert with medical specialty organizations and other appropriate groups, to devote increased effort to the development and use of self-assessment evaluation programs for physicians; (2) to

investigate the desirability of requiring periodic documentation by their members of participation in continuing education as a condition for continued medical society membership (such as has occurred or is under consideration in the states of Oregon, California, Virginia and Pennsylvania). The Committee intends to study these matters in the coming months.

As a result of a recommendation of the Committee, beginning in April a regular feature in the IMS JOURNAL will discuss and carry news about continuing medical education programs and activities. Physicians are urged to read this feature regularly.

The Committee is pleased to report that the Director of Medical Education at York Hospital, York, Pennsylvania, will discuss "Peer Review and Quality of Care Assessment Within the Hospital" on Tuesday, April 27, during the 1971 Annual Meeting program. On Monday afternoon, April 26, a series of workshops have been arranged, including a series of demonstrations/self-assessment quizzes.

Based on recommendations of the Committee and others, the IMS cooperated with the Iowa Chapter, Student American Medical Association, the College of Medicine and the Iowa Hospital Association in a medical student summer job-education project during the summer of 1970. It was designed to place freshmen and entering freshmen medical students in community hospitals during their vacation periods, in an effort to increase the scope of their education and stimulate their interest in practicing in smaller communities. Even though the program received a late start, 17 students were assisted in obtaining jobs in 12 Iowa hospitals, and greater participation is anticipated this year.

Representatives of the Committee were appointed to serve on a special MD/DO Education Study Committee, which was appointed to make recommendations with respect to supporting or opposing state funding for the Des Moines College of Osteopathic Medicine and Surgery. A detailed report on this matter is contained in the special committee's report to the House.

The Committee was pleased to learn of the appointment of Robert E. Rakel, M.D., as Head of the new Department of Family Practice at the University of Iowa College of Medicine, effective in February, 1971. Dr. Rakel has headed a similar department at the University of California in Irvine, California. He has been invited to speak at the scientific session on April 27.

In response to a 1970 House of Delegates action recommending study of a medical tape library, utilizing the telephone system, the Committee is pleased such a program is now available to Iowa physicians under the joint sponsorship of the Regional Medical Programs of Iowa, Nebraska-South Dakota, and Kansas. Quick, comprehensive information on various medical subjects can be obtained by Iowa doctors through toll-free calls to 800-228-4011.

The Society continues to be involved in discussions being carried out by a Four-State Coordinating Committee on Higher Education (Iowa, Minnesota, South and North Dakota). The Committee includes representatives from the states' medical schools, legislatures and medical societies. Items of mutual interest are being considered—medical education, licensure, manpower, etc. Attention is also being given to the feasibility of developing interstate educational programs.

The Society continues to maintain close and excellent rapport with the College of Medicine, through faculty representation on this and other important committees, as well as through frequent contacts with John Eckstein, M.D., Dean of the College of Medicine, and Robert C. Hardin, M.D., Vice Provost and Dean for Health Affairs. An excellent article concerning the College of Medicine was prepared by Doctor Eckstein and published in the December, 1970 issue of the IMS JOURNAL.

ROBERT N. LARIMER, M.D., *Chairman*

COMMITTEE ON MEDICAL SERVICE

The Committee on Medical Service has not met this past year.

The processing of CHAMPUS claims has been transferred from the Iowa Medical Society to Iowa Medical Service (Blue Shield). Effective February 1, 1971, payments for services covered under the CHAMPUS Program will be based on the same usual, customary and prevailing criteria as used to determine payments under the Blue Shield private Usual, Customary and Reasonable (UCR) contract. During the calendar year 1970 the number of CHAMPUS claims processed by the Society totaled 9,772. The amount of money paid in 1970 was $636,172.50.

J. K. MACGREGOR, M.D., *Chairman*

SUBCOMMITTEE ON ECONOMICS OF HEALTH CARE

The Subcommittee on Economics of Health Care met once this past year. The principal purpose of this meeting was to discuss the present Medicare prevailing fee districts to see if a geographical re-arrangement of these districts might be desirable. The 1970 House of Delegates referred Resolution 19 from Boone County to the Subcommittee. This resolution requested revision in the present Medicare prevailing fee areas because certain counties in the same prevailing fee areas were felt to have dissimilar economic characteristics. For instance, Boone County, with a natural trade area that includes Story and Polk Counties, has been placed in a totally rural area of southwest Iowa.

Representatives of the Medicare Carrier advised the Subcommittee it would be possible to revamp the prevailing fee areas providing the resulting new areas do not increase the overall Iowa cost of Medicare. However, it was pointed out that the Social Security Administration may regard the cost of programming changes as unjustified, since the Carrier has just incurred the expense of updating fees to the 1969 level using the existing prevailing fee districts. The Subcommittee reviewed alternative plans for dividing the state. Each plan showed the number of medical groups, the number of specialties, and the total number of physicians in each area. If a change in prevailing fee districts was to be made, the Subcommittee felt that a four-area map might be most acceptable in replacing the present eight areas.

After considerable debate, the Subcommittee recommended to the Executive Council that the present Medicare prevailing fee areas be retained until some experience with the new 1969 fee data is available. The Council approved the recommendation. Use of the 1969 charge data began January 1, 1971. The Subcommittee may review the prevailing fee areas once again after some experience with this new data is available.

C. O. ADAMS, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL REVIEW

The Subcommittee on Medical Review was quite active this past year. The 1970 House of Delegates directed the Subcommittee on Medical Review to (1) continue to study the matter of payment for surgery and surgical assistants under Medicare and (2) to formulate and develop "standards of medical care."

After considering further the problem of payment for surgery and surgical assistants under Medicare, the Subcommittee recommended the Executive Council sustain the original recommendation presented to the House of Delegates in 1970. Under this recommended approach claims submitted by physicians show which of the following components of a surgical illness are represented by the charge listed on the claim form: (1) patient workup; (2) normal pre-operative care; (3) surgery; (4) surgical assistant; (5) normal post-operative care. The Executive Council agreed the recommendation should be submitted once again to the 1971 House of Delegates for its consideration and action.

Since extensive deliberation is involved in developing "standards of medical care," it was decided the Subcommittee should be expanded. Therefore, the Subcommittee has been increased from 9 to 20 members, including general practitioners and one representative from each of the specialty groups.

The IMS is expecting norms or standards from Hennepin County, Minnesota for reference use. The Subcommittee on Medical Review plans to evaluate this Minnesota data and draw upon it in developing norms and standards for Iowa physicians. When the information is received, the Subcommittee will meet again to finalize the "standards of medical care."

While the information from Hennepin County has not yet become available, the Subcommittee has considered many factors which bear on this project and which will have to be worked out before the final "standards of medical care" can be devised.

Hopefully, the standards and norms from Hennepin County will be available to the Subcommittee before the 1971 session of the House of Delegates. If the Subcommittee does meet prior to the Annual Meeting, a supplemental report will be made to the 1971 House of Delegates.

Since the last Annual Meeting, 49 cases have been referred to district peer review committees for recommendation. As this report is prepared, six cases are still pending. Of those cases reviewed by the district peer review committees, only four have been appealed to the Subcommittee on Medical Review. This Subcommittee has agreed with the district peer review committee's recommendation in each instance.

R. S. GERARD, II, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL PRACTICE IN HEALTH FACILITIES AND HOMES

The Subcommittee on Medical Practice in Health Facilities and Homes has not met this year.

J. F. VEVERKA, M.D., *Chairman*

MEDICO-LEGAL COMMITTEE

No matters have been referred to this Committee, and therefore no meetings have been held.

In several other Handbook reports (Group Insurance and Iowa Bar Liaison), the Society's concern over the disquieting malpractice insurance picture is mentioned. IMS officers have been in communication with representatives in the professional liability insurance field this year in an effort to stay up to date on developments. A proposed physician survey of malpractice experience in Iowa, which is referred to in the other reports, will provide Society officers with information to use in further discussions with the insurance representatives. This is an area which obviously deserves close attention.

A. L. JENKS, JR., M.D., *Chairman*

COMMITTEE ON PUBLIC RELATIONS

Although the Public Relations Committee continues to oversee certain specific public service and public relations activities, it wishes to emphasize that all IMS officers and committees carry on projects and make appropriate contacts in an overall effort to gain public understanding and support of medicine's position on various health issues and problems.

The Committee is pleased to highlight a few of the P/R oriented programs in which the Society is involved:

- The Hawkeye Science Fair continues to be a most successful and worthwhile event. The Fair, which is co-sponsored by the Iowa Medical Society, the Scanlon Medical Foundation/IMS, THE DES MOINES REGISTER AND TRIBUNE, and Drake University, attracted over 650 student exhibitors in 1970—a record number—and several thousand persons came to the Veterans Auditorium in Des Moines to see the scientific projects.
- A radio series entitled "Doctor's House Call" continues to be broadcast over WOI Radio in Ames. Physicians from throughout Iowa appear on the program to answer questions and discuss important health topics. Society representatives also appear frequently on the live television discussion program "Dimension V" which is telecast over WOI-TV.
- As a member of the Iowa Health Council, the IMS coordinated arrangements for the second Statewide Conference on Drug Abuse held last fall under IHC sponsorship.
- Another IHC project which continues to receive wide public attention is the "Hall of Health" exhibit section at the Iowa State Fair. Again, IMS staff assume responsibility for completing necessary arrangements.
- Reprints of the "In the Public Interest" section of the IMS JOURNAL are mailed regularly to all news outlets in the state, as well as to all Iowa legislators. Subjects covered during the past year included: Foundations for Medical Care, Drug Abuse, Rubella Immunization Program, Medical Practice in Iowa, Health Care Legislation, Structure of Organized Medicine.
- Maintaining liaison with representatives of the communications media—press, radio, television and wire services—is an important function of the Committee and IMS staff. Personal contacts are made whenever necessary to provide additional information to reporters who have written articles which may not (1) accurately reflect the Society's position or (2) describe the medical profession's involvement in particular health-related matters. An example of the Society response to inaccurate or misleading news reporting was provided to the membership in an IMS NEWS BULLETIN dated October 29, 1970. The Society has made every attempt to call to the attention of the public the profession's efforts to protect against any intentional or unintentional abuse associated with the

delivery of health care; emphasis has been placed on the operation of the IMS peer review program.

• The Society's Annual Meeting is well covered by the mass media, and affords an opportunity to inform the public about important health subjects, as well as socio-economic matters related to health care.

The Society was represented at a Communications Institute sponsored by the American Medical Association last fall.

JOHN G. THOMSEN, M.D., *Chairman*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

A joint meeting of the IMS Subcommittee on Interprofessional Activities and its counterpart from the Iowa Pharmaceutical Association was held last summer to discuss items of mutual interest and concern.

Attention was given to an action of the American Pharmaceutical Association which favors repeal of anti-substitution laws. These laws restrict a pharmacist from substituting a drug product for one specifically prescribed by the physician. According to the pharmacy representatives, the IPhA is not opposed to the basic philosophy of the APhA position, but it has not officially endorsed the APhA action. It was acknowledged the American Medical Association has opposed the repeal of anti-substitution laws, and IMS representatives stressed points which support this position. This subject will be discussed by a panel at the IPhA Annual Meeting in May; L. J. O'Brien, M.D., current President-elect, has been invited to represent the IMS on the panel.

The authority of podiatrists to prescribe drugs for their patients was given further attention at the joint meeting, as well as at a subsequent meeting in August which involved IMS and IPhA representatives. IMS legal counsel has prepared an opinion on this subject, and, if necessary, the IMS will resist legislative attempts to alter this opinion.

Another important subject considered at the joint meeting had to do with physician ownership of pharmacies. IPhA representatives advised since 1964 there has been an upward trend in the number of physician-owned and clinic pharmacies in Iowa. They expressed no objections to a pharmacy being located in a clinic, under proper conditions, since this provides an added service to the patient. The pharmacists were reminded AMA Principles of Medical Ethics declare it is not unethical for a physician to participate in the ownership of a pharmacy or to regularly dispense drugs, provided this is done in the best interest of the patient; further, that rental of space by a physician or a group of physicians to a pharmacy should be on a fixed rental basis.

Last fall C. E. Radcliffe, M.D., chairman of the Subcommittee, was named President-elect of the Iowa

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Health Council, and Donald L. Taylor, IMS Executive Vice President, was re-elected Secretary-Treasurer. S. P. Leinbach, M.D., a member of the Subcommittee, is a member of the Iowa Health Council's Board of Directors. Organizational membership in the IHC now includes the Iowa Medical Society, Iowa Dental Association, Iowa Pharmaceutical Association, Iowa Veterinary Medical Association, Iowa Hospital Association, Iowa Nurses' Association, Iowa Nursing Home Association, Iowa Society of Osteopathic Physicians and Surgeons and Iowa Podiatry Society.

The Council's Second Statewide Conference on Drug Abuse was held at the Veterans Memorial Auditorium in Des Moines on October 7. The first conference attracted approximately 1,500 students, teachers, law enforcement officials, etc.—and over 2,500 attended the more recent program. A follow-up questionnaire was mailed to those who pre-registered for the conference, along with a program summary, and the response indicates an interest in having the IHC sponsor similar sessions in the future on other important health subjects.

Members of the 64th Iowa General Assembly were honored by the IHC at a dinner on February 4. Although there was no formal program, the legislators were apprised of the purposes and objectives of the Health Council, as well as some of its public service projects.

The Council continues its sponsorship of the Hall of Health at the Iowa State Fair. Last year, each member organization planned and presented a day's program. In addition, special exhibits on health were displayed.

Arrangements for all IHC programs and projects are coordinated through IMS Headquarters by Mr. Taylor and other IMS staff members.

C. E. RADCLIFFE, M.D., *Chairman*

COMMITTEE ON STATE DEPARTMENTS

It has been the custom in this brief report to point out that the Committee on State Departments functions only as an entity to tie together the six Society subcommittees which have liaison relationships with various agencies of state government. The chairman of these six subcommittees (Aging and Chronic Illness, Maternal and Child Health, Psychiatric Care, Public Assistance, Rehabilitation and Safe Transportation) comprise the Committee on State Departments.

As usual, members of the House of Delegates are encouraged to read the individual reports of these committees. In practically all cases, the committees have been involved in some kind of activity during the year.

Inasmuch as the Society is involved in and follows with interest various public health programs, it is in order to note the valuable service rendered by the three IMS member physicians who serve on the State Board of Health. These men are F. H. Top, M.D., E. E. Gamet, M.D., and P. J. Leehey, M.D. The Society publishes monthly in the IMS JOURNAL materials on public health which are supplied by the State Department of Health.

Arnold M. Reeve, M.D., is now in his second year as Commissioner of Health for the State of Iowa. Dr. Reeve and his associates are in periodic contact with the Society on various matters.

One matter referred to the Society this year by the Department of Health concerned the feasibility of reserving one or two specific antibiotics solely for use in a severe life-threatening situation. Cursory study of the idea has led to the conclusion that it is impractical.

This short report then is submitted as an introduction to the subcommittee reports which follow.

A. H. DOWNING, M.D., *Chairman*

SUBCOMMITTEE ON AGING AND CHRONIC ILLNESS

In 1970 the Subcommittee on Aging and Chronic Illness reported to the House of Delegates on the then proposed legislation to revise nursing home standards. The Subcommittee reviewed with the Commissioner of Health the need for and the merits of updating those statutes which regulate nursing and custodial homes in Iowa.

Since the Subcommittee's last report this legislation has been passed into law; it was followed closely by the Society in the process. The new law, which becomes effective July 1, creates seven classifications of health care facilities; it provides for the definition, licensing, inspection and regulation of these facilities. The seven classifications are adult foster home, boarding home, custodial home, basic nursing home, intermediate nursing home, skilled nursing home and extended care facility.

This new legislation will require a physician to certify that a person admitted to any of the first three care facilities does not need nursing care. It also will be necessary for the physician to certify in the other four classifications that the patient is in need of no greater care than the facility can supply.

The Department of Health is now in the process of formulating rules and regulations to accompany the statutory provisions. These will be examined carefully by the Society.

The Society has been involved to some degree in state-level planning for the White House Conference on Aging which is to occur in November in Washington, D. C. The national conference is to be preceded by state-level White House Conferences. The Society has provided the Governor's office with comments and reference materials for possible use in planning these conferences.

The chairman of the Subcommittee expects to attend a March 21 meeting being held in Chicago under AMA auspices for the purpose of considering with other states medicine's proper role in the White House Conferences, specifically as it relates to improving and maintaining the health of the aging.

In its recommendations to this point the Society has urged that attention be given in the White House Conferences (1) to the availability of health care for the elderly and rural, (2) to the use of paramedical personnel, e.g., the physician's assistant, and (3) to the cultist who preys on the elderly.

E. E. LINDER, M.D., *Chairman*

SUBCOMMITTEE ON MATERNAL AND CHILD HEALTH

The Subcommittee on Maternal and Child Health has met once this past year. This meeting was primarily for the purpose of reviewing the 1970 statewide rubella eradication program.

By last fall immunization programs were completed in each of Iowa's 99 counties in a massive effort be-

lieved to have been as extensive and successful as any undertaken by a single state. Representatives of the State Department of Health have provided the Subcommittee with the following statistical information:

- Better than 521,000 rubella immunizations were administered.
- More than 1,200 hours of clinic sessions were held.
- 88.4 per cent of the target population (1-13-year olds) was reached.
- 94 per cent of the school-age children were vaccinated.
- Over 1,300 hours of physician time were contributed in the total effort.

The Department of Health has continued to make rubella vaccine available to physicians on a no-charge basis for follow-up coverage. It was the feeling of the Subcommittee that each county should determine and conduct its own mop-up program. It was suggested that effort be exerted to keep the immunization level at 90 per cent in order to eradicate the disease.

The statewide rubella program was reviewed in the "In the Public Interest" feature of the JOURNAL OF THE IOWA MEDICAL SOCIETY last August. This monthly feature is circulated to the press, the state's legislators and others.

It should be noted that the Scanlon Medical Foundation/Iowa Medical Society involved itself in the administration of the rubella program to the extent of serving as the conduit through which donated money traveled on its way to purchase vaccine from the pharmaceutical manufacturers.

In other action, the Subcommittee has recommended, and the Executive Council has approved, Society support of a new rapid disease reporting system which is now being considered by the Department of Health. Under this proposal the Department would install and publicize an incoming WATS line for physician use in reporting communicable diseases. It is felt this approach would be more convenient and less time consuming for physicians than the present system of mailing cards or reports.

Also, the Subcommittee has recommended Society support for a Department of Health proposal to require rubella testing as a routine phase of the premarital examination along with or in lieu of the venereal disease check now required. Results of the rubella test would be transmitted to the physician and any action in the case of a woman not immune would be left to the doctor. The Executive Council sustained this recommendation of the Subcommittee when it was presented last summer. The modification remains in the exploratory stage at the Department of Health.

The Subcommittee has continued to be of assistance to the Committee on Legislation in its consultation with the General Assembly on the subject of therapeutic abortion.

Other matters discussed by the Subcommittee this year included: (1) the problem of printed inserts in oral contraceptive containers; (2) the possible gap in insurance coverage for the newborn, and (3) the desirability of a standard statewide immunization record keeping and school examination form. These items will be given further attention.

The Subcommittee continues to serve as liaison with the Nutrition Council of Iowa and with the Iowa Youthpower Project.

W. J. BALZER, M.D., *Chairman*

SUBCOMMITTEE ON PSYCHIATRIC CARE

The work of the Subcommittee has been concentrated almost entirely in one area this past year. A three-member subcommittee of the Subcommittee was designated last August to review jointly with a like number of representatives from the Iowa Bar Association those state statutes which pertain to voluntary and involuntary commitment.

The long-time interest of the Subcommittee in this area was stimulated last year by an IOWA LAW REVIEW report prepared by two law students and entitled, "Iowa Civil Commitment Study." This interest prompted the appointment of a joint IMS-IBA Committee which has now met three times.

The joint Committee has obtained information from various states on the subject of commitment. It has also requested reference materials on the subject from the American Medical Association, American Psychiatric Association and the American Bar Association. The joint committee has agreed the matter of commitment in its broadest sense is too complex to deal with on a short duration basis. Under consideration now is whether Iowa's statutes should be rewritten entirely, just revised or left intact. These alternatives will be considered further when the joint committee meets next on March 23.

The joint committee has involved itself in the development of a legislative proposal which covers the emergency detention of the mentally ill. This legislation makes it possible for a person believed to be mentally ill, and likely to injure himself or others, to be taken to a state mental health institute, to the state psychopathic hospital or to a public or private hospital for the purpose of emergency observation and diagnosis. This detention is not to exceed 72 hours unless an information is filed with Hospitalization Commission in accordance with Chapter 229 of the Iowa Code. Still in some question is the number and position of those individuals who would need to agree to the emergency detention. The IMS-IBA Committee has accepted the recommendation that there be two persons involved, possibly a judge and a police officer. If this proposal is introduced in this session of the General Assembly it will probably be done by the State Council on Social Services.

In other legislative developments, the Subcommittee just learned that a bill to register psychologists has been introduced into the Iowa General Assembly. The Subcommittee has met with representatives of the psychologists on several occasions over the years and has generally opposed licensure and encouraged voluntary registration. The Subcommittee has expressed a willingness to continue to discuss the subject. Chances for passage of this bill are not known as this report is prepared.

A formal communication was transmitted last fall from the Society to the Vice Provost and Dean for Health Affairs at the University of Iowa on the recommendation of the Subcommittee. This letter expressed support for retention of the present administrative arrangement wherein the Director of the Psychopathic Hospital and the Head of the Department of Psychiatry are the same individual. The Society's communication was stimulated in part by a paper emanating from the University entitled, "Statement Regarding Administration of Psychopathic Hospital." It was based also on the knowledge of the forthcoming retirement of Paul

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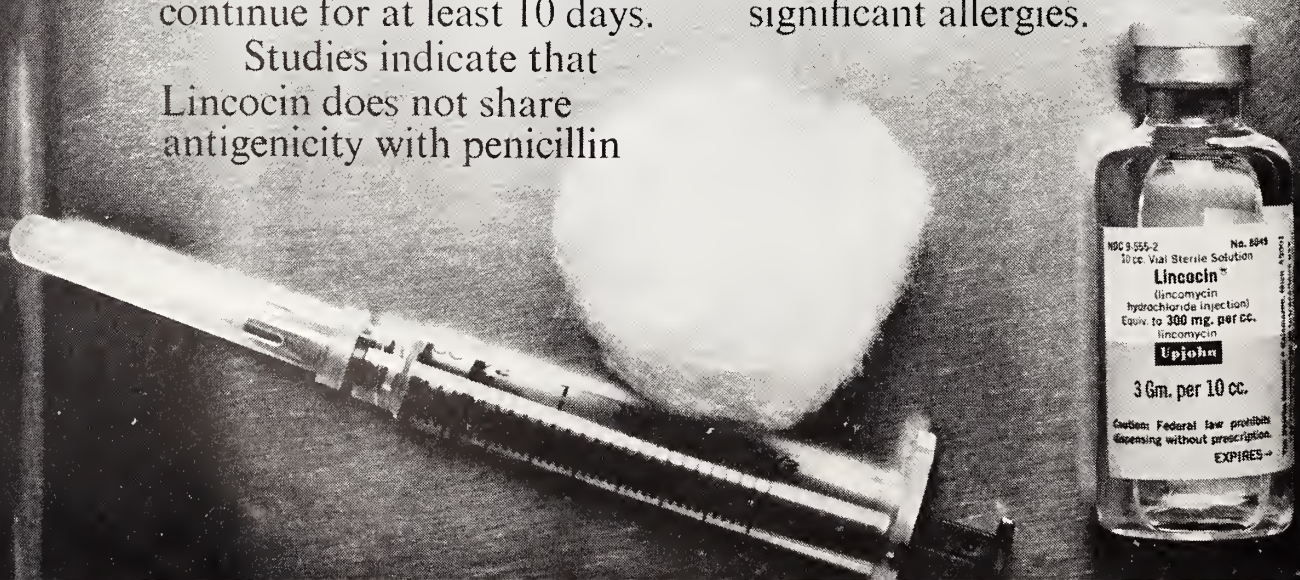

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CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances. *Cardiovascular*—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

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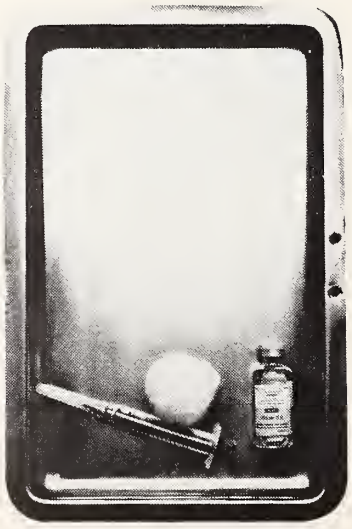

Huston, M.D., currently serving in the aforementioned dual capacity.

It might be well to note in concluding this report that the State Psychopathic Hospital observed its 50th anniversary last year.

W. A. BOCKOVEN, M.D., *Chairman*

SUBCOMMITTEE ON PUBLIC ASSISTANCE

The Subcommittee on Public Assistance has been deeply concerned, not only during the past year, but since the program began, over the high percentage of Medicaid expenditures for drugs. In Iowa drugs represent between 23 and 25 per cent of the total Medicaid expenditures.

The Department of Social Services is under continuing pressure from federal agencies to reduce Medicaid drug costs.

The Subcommittee knows the nationwide drug average is about 7 per cent of total expenditures; we know also that comparing the percentages of different states is not completely accurate because each has its own drug program and each has its own administration and control system. However, it is felt the differences are significant enough to warrant additional evaluation.

During the past year the Subcommittee has met on several occasions with the staff of the Department of Social Services. Of primary concern has been the high cost of drugs prescribed under the Medicaid (Title XIX) Program, as well as drug overutilization. In considering the lowering of the drug costs, termination of payments for: a) Anti-obesity drugs, b) Prescription vitamins, and c) Darvon® products has been reviewed and evaluated. The Subcommittee has felt that termination of payment for drugs such as this constituted an infringement on the physician's judgment in his practice of medicine. A prior approval system with respect to the anti-obesity drugs and prescription vitamins was considered. This would allow the physician to utilize these products in cases where a definite need existed. Voluntary restraint was regarded by the Subcommittee as the most effective mechanism in the control of drug utilization, but it was recognized that human fraility is such that this would unlikely become a self-initiating control mechanism.

At a later meeting of the Subcommittee, interest in the total percentage of Medicaid expenditures for drugs was continued. The Subcommittee thoroughly recognizes the extreme difficulty in over-seeing the total Medicaid program. The Department of Social Services has asked each recipient to designate both his doctor and pharmacist in an effort to limit any possible duplications in the program. The Subcommittee feels that efforts of the Department of Social Services to control drug costs should be educational in nature and should be directed at those whose practices vary from the norms of other practitioners.

It was the sentiment of the Subcommittee that both the physician and the pharmacist should take an even greater interest in the medications the patient is taking. A formulary of some type has been considered, but the conclusion at the present is that other methods should be tried before a formulary is established, since such action would prompt much disagreement among physicians on what drug should be on the list; a limited formulary would add one more annoying burden to those physicians who have heretofore been willing to care for this special group of patients.

The Subcommittee will recommend to the Executive Council a program wherein the Department of Social Services would:

1) Notify the physician when one of his patients is receiving more than 10 different drugs concurrently.

2) Notify the physician when a patient has received the same prescription from a pharmacist three or more times in the same month.

3) Urge pharmacists to notify the physician when either or both of the above guidelines are being exceeded.

K. E. Lister, M.D., Chairman of the IMS Board of Trustees, and R. S. Gerard, II, M.D., Chairman of the Subcommittee on Medical Review, appeared before the Medicaid Study Committee of the Iowa General Assembly in October, the purpose being to present the philosophy and mechanics of peer review as it now operates within the Iowa Medical Society and to assure the legislators that the IMS is making a conscientious effort to see the Medicaid program is operating efficiently. Several examples of peer review claims were presented to illustrate how the mechanism operates.

Your chairman was invited and accepted an invitation to meet with members of the Drug Review Team from the regional and central offices of the Department of Health, Education and Welfare on January 21, 1971. Various ideas were considered wherein the drug costs in Iowa could be reduced, and without interfering with the physicians mode of practice.

The members of the Subcommittee wish to express their deep gratitude and will hold in revered memory the late Isaac Sternhill, M.D., Council Bluffs, Iowa, who for many years guided the deliberations and reflections of this group.

The chairman wishes to express his sincere appreciation to the members of the Subcommittee who assisted in the deliberations associated with the program as outlined.

A. J. HAVLIK, M.D., *Chairman*

SUBCOMMITTEE ON REHABILITATION

Iowa physicians have received since the first of the year an informational Handbook which contains the medical criteria used in evaluating disability under Social Security. The Iowa Medical Society assisted the Iowa Social Security Disability Determination Unit with the distribution of this Handbook and provided to accompany it a covering letter from Society President J. H. Sunderbruch, M.D.

Initial arrangements for the mailing of the Handbook were made by Homer E. Wichern, M.D., Chief Medical Consultant, Disability Determination Unit, Iowa Division of Rehabilitation Education and Services. Dr. Wichern is a member of the Society's Subcommittee on Rehabilitation.

The Iowa Medical Society was among the organizations extending congratulations to the State of Iowa on the recent 50th anniversary of its vocational rehabilitation program. A special commemorative program was held February 4 which included remarks by Governor Robert Ray and HEW regional representative Max Milo Mills. The Iowa vocational rehabilitation program was cited as being among the 12 best in the country.

The Iowa Chapter of the American Physical Therapy Association has communicated with the Society this past year and has suggested effort be made to renew liaison between the two organizations. This liaison

has existed through the years, and the Society has responded affirmatively to the suggestion that it be stepped up in the future.

Under consideration at this time is a request from the Governor's Committee on Employment of the Handicapped that the Society provide savings bonds which are awarded winners of a state essay writing competition. Essays are on the subject of employing the handicapped. This request has been referred to the Board of Directors of the Scanlon Medical Foundation/Iowa Medical Society.

C. B. LARSON, M.D., *Chairman*

SUBCOMMITTEE ON SAFE TRANSPORTATION

In December the chairman of the Safe Transportation Committee attended a Conference on Emergency Medical Care in Kansas City. The conference was sponsored by the National Highway Safety Bureau, the Regional Office of the U. S. Public Health Service and the Kansas University Medical Center. A meeting of the Subcommittee will be held in the near future and a report on the conference will be presented, and other matters of importance will be discussed.

Two conferences on "The Immediate Care of the Sick and Injured" were held this year in area community colleges, one in Sioux City, the other in Cedar Rapids. The IMS joins in sponsoring these programs along with the State Department of Health, The University of Iowa College of Medicine, and the Trauma Committee of the American College of Surgeons. Appropriate county medical societies are consulted and invited to join in these educational projects. The courses are designed for ambulance drivers, policemen, firemen, etc.

The Medical Advisory Board to the State Department of Public Safety evaluated several reports this past year of driver's license applicants which required medical review. To date, 27 case files have been acted upon by the Advisory Board. It should be emphasized that the Board acts in an advisory capacity only, and the granting of a driver's license remains the responsibility of the Public Safety Department.

The liaison and cooperation which exists between the IMS and officials of the Iowa State Highway Patrol and Department of Public Safety is excellent, and the Subcommittee intends to maintain close contact in order to assure proper coordination of projects and activities which are of mutual interest and concern.

ARTHUR H. DOWNING, M.D., *Chairman*

PUBLICATIONS COMMITTEE

We regret in this report to announce the retirement of Dennis H. Kelly, Sr., M.D., as Scientific Editor of the JOURNAL OF THE IOWA MEDICAL SOCIETY. Dr. Kelly has served with distinction in this capacity for many years. Through his efforts and those of his co-workers the JOURNAL has earned a place in the top echelon of state journals. We are grateful to Dr. Kelly for his devoted service and we wish him well in the years ahead.

We are pleased to advise that Marion E. Alberts, M.D., Des Moines, will succeed Dr. Kelly as Scientific Editor of the JOURNAL. Dr. Alberts, a pediatrician, has served ably as a member of the JOURNAL's Scientific Editorial Panel. He has been active in the Society in other ways over the years, serving for a period as chairman of the Committee on Public Relations.

The JOURNAL continues to be indebted to Richard M. Caplan, M.D., Assistant Dean for Continuing Medical Education, University of Iowa College of Medicine. Dr. Caplan is the JOURNAL's liaison representative at the College of Medicine and has been instrumental in securing from University faculty members an excellent inventory of scientific manuscripts. The JOURNAL has been pleased also during the year to publish a number of papers by Iowa physicians in private practice.

The JOURNAL has undergone a moderate amount of change this past year. Several new features have been introduced and some changes in appearance have been made. The JOURNAL's fiscal picture has also improved somewhat.

Iowa physicians have a standing invitation to submit suggestions, case reports, scientific manuscripts and news items for the JOURNAL at any time.

K. E. LISTER, M.D., *Chairman*

Report of Special Committees

COMMITTEE ON ALCOHOLISM

This has been an organizational year for the Committee on Alcoholism. The Committee was appointed in 1970 by Society President J. H. Sunderbruch, M.D., on the recommendation of the Subcommittee on Psychiatric Care. Prior to the appointment of the Committee on Alcoholism, matters in this area were referred to the Subcommittee on Psychiatric Care.

The Committee on Alcoholism has met five times this year and has devoted itself almost entirely to the gathering of information. Effort has been made (1) to comprehend the magnitude of the problem in Iowa, (2) to determine what is being done, (3) to see what the future prospects are, and (4) to make some judgment as to how the medical profession may be able to participate more actively and effectively in this area.

In the process of gathering data, the Committee has met (1) with Mr. John Atherton, former assistant director of the Iowa Commission on Alcoholism; (2) with two representatives of Alcoholics Anonymous; (3) with Harold A. Mulford, Ph.D., Director of Alcohol Studies at The University of Iowa; (4) with those directing the alcohol treatment unit at the Independence Mental Health Institute; and (5) with Harold Moessner, M.D., president, Iowa Chapter, American Academy of General Practice.

The chairman appeared before the IMS Executive Council October 21 to report on the Committee's activities and to seek approval for a physician education project. This project is now in process and will involve the distribution of literature to all Iowa physicians from the AMA, AA and the Iowa Commission on Alcoholism.

In another project the Committee expects to sponsor jointly with the Iowa Commission on Alcoholism an educational exhibit at the 1971 IMS Annual Meeting. The Commission will provide materials for the exhibit and members of the Committee will man the booth on Monday and Tuesday, April 26 and 27.

The Committee has arranged for a session of the summer meeting of the Iowa Chapter, American Academy of General Practice, to be devoted to a discussion of alcoholism. C. F. McClure, M.D., a member of the Committee, is coordinating this project. In addition, during the year, several members of the Committee have appeared on radio and television to discuss alcoholism.

The Committee has attempted to determine the extent to which U. of I. medical students are briefed on the problem of alcohol, and it has been pleased to learn the new curriculum of the College of Medicine offers reasonable exposure in this area.

The Committee has studied the AMA statement which was presented to the U. S. House of Representatives in support of the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970. The Committee has strongly endorsed this statement.

The following statistics on alcoholism in Iowa are presented for the interest of the House of Delegates and to underscore the need of the Committee to continue the work it has begun this year: Of the 1.7 million adults in Iowa 25 per cent are light drinkers and 9 per cent are heavy drinkers. Of the 9 per cent one-third are alcoholics. There are approximately 53,000 alcoholics in the state and 3,000 are skid-row individuals who have lost their families, jobs, etc. Another 20 per cent are approaching this point; these people are beginning to show some physical deterioration and are turning up in the welfare offices. The remaining 75 per cent are showing up in the offices of physicians, clergymen and lawyers, but they purport to be there for help with some other problem

S. M. HAUGLAND, M.D., *Chairman*

ARCHITECTURAL EDUCATION COMMITTEE

Acting in response to a 1970 House of Delegates action, the Board of Trustees recommended appointment of an Architectural Education Committee to consider with representatives of the Iowa Chapter, American Institute of Architects, the value of a permanent interrelationship between MD's and architects. Such liaison would be for the purpose of education and communication with the long-range goal being to acquaint IMS members with new ideas, concepts and philosophies in hospital and health facility design, so they will be better informed when called upon to lead in the development of these community facilities.

A joint meeting of the Committee and the AIA representatives was held late in January, at which time specific and general problems relating to construction of medical facilities were discussed.

It was agreed the IMS should strongly recommend (1) that any immediate or long-range building programs have *involvement and participation by a broad base of physicians,* and (2) that this involvement occur early enough to assure consideration of the physicians' constructive ideas about needs, function, effectiveness, etc. In this regard, reference was made to recommendations by organized medicine at all levels, as well as by the Joint Commission on Accreditation of Hospitals, that physicians be included as official members on hospital boards of directors.

As a result of the first meeting, individual members of the Committee and the representatives of the Iowa Chapter/AIA plan to give individual study to the definition of possible goals and objectives, as well as to whether or not it is feasible to develop educational programs and other activities of benefit to members of the medical and architectural professions, to medical facility administrations (hospitals, nursing homes, etc.) and, ultimately, to the public.

The Committee is scheduled to meet again in March with the architects.

JAMES E. KELSEY, M.D., *Chairman*

COMMITTEE ON BLOOD BANKING

The Committee on Blood Banking met via telephone conference call January 22. Included as guests were Dr. Henry Caes, Medical Director, and Mr. Richard Crowley, Administrative Director, Siouxland Community Blood Bank, Sioux City, Iowa. Mr. Robert B. Throckmorton, IMS Legal Counsel, was also present. The Committee discussed the feasibility and desirability of proposing additional legislation in Iowa to provide protection against the "strict liability" legal concept as it might be applied to blood banking. The courts in Illinois and Pennsylvania have recently taken a stand which opens the way for imposition of strict liability on the practice of medicine. Blood banks, hospitals and perhaps physicians may be subject to penalities for failing to do the impossible—determine whether a given donor or a given unit of blood may transmit hepatitis.

In 1969, this Committee, with the assistance of the Iowa Association of Blood Banks, pressed vigorously for the addition of the implied warranty exclusion to the Uniform Anatomical Gifts Act. This was accomplished in House File 305. The Pennsylvania decision threatens to impose "strict liability" on services. The Iowa statute would not necessarily bar that result.

Taking into account certain legislative considerations the Committee recommended the IMS, if circumstances are favorable and depending upon legislative developments, file an appropriate legislative amendment to protect against strict liability, i.e., liability without fault. This recommendation has been referred to the Legislative Committee and to the Executive Council.

We are pleased to report that the Iowa Senate has passed a bill permitting minors age 18 or over to donate blood to any voluntary blood program without parental permission. On Friday, January 28, the House passed this bill 92-0. The bill will now be referred to Governor Ray and, hopefully it will be signed. The bill will help to alleviate some of the donor procurement problem. It is hoped it will be possible to interest young people in becoming blood donors during their eligible years.

A final item under consideration by the Committee is concerned with a detailed report presented by Dr. Caes and Mr. Crowley relative to blood drawn from donors within the geographical limits of the state, but removed from the state by Regional Red Cross Blood Bank Centers. It is not known at this time whether this situation is a real inequity to the people of Iowa; it is hoped the American Red Cross will provide data to clarify this matter. The concern of the Committee centers about the fact that The University of Iowa finds it necessary to purchase large amounts of commercial blood from sources outside of Iowa. This is both expensive to the University and also carries some added risk of hepatitis exposure to Iowans hospitalized at the University. The University is presently screening all blood it uses, but there are no methods which effectively screen out all cases of hepatitis. Recent research papers show, without doubt, that the incidence of hepatitis is higher in blood obtained from professional donors in some areas.

The Committee presently has this problem under study and expects, before the Annual Meeting, to report some progress in its solution. It has been sug-

gested by several blood bankers that the Iowa Medical Society in conjunction with the Iowa Association of Blood Banks and The University of Iowa sponsor and promote a statewide donor procurement and blood assurance program. A feasibility study of this concept will be investigated.

W. S. PHETEPLACE, M.D., *Chairman*

AD HOC COMMITTEE/DELIVERY OF HEALTH CARE TO A RURAL AREA IN NEED

The Ad Hoc Committee on Delivery of Health Care to a Rural Area in Need was created a little over a year ago to study the feasibility of the Society's establishing a model for providing health services in a selected rural area in Iowa which does not have adequate physician coverage.

Soon after the Committee was appointed, John C. MacQueen, M.D., Associate Dean, University of Iowa College of Medicine, requested an opportunity to share with it a proposal of the College which provides for a Model Rural Health Center in an 8-township area west of Oakdale. In essence, this proposal would establish a model demonstration unit to provide primary health services in an area lacking adequate physician coverage, and to provide a training opportunity and facility for medical students, and others involved in the health sciences.

A second session involving the Committee and Doctor MacQueen was held last October to consider the proposal further and to clarify questions posed by members of the Executive Council. At that meeting, the Committee suggested minor modifications in the proposed project, and they were accepted.

Subsequently, on recommendation of the Committee, the Executive Council approved The U. of I. Model Rural Health Center plan as evolved from discussion with the Ad Hoc Committee and incorporating the Committee's recommendations. The Council also approved a recommendation that the ad hoc committee be retained for the purpose of maintaining liaison with the new Family Practice Department at The University of Iowa College of Medicine, especially in relation to the development of the Model Rural Health Center.

The Committee also considered a resolution referred to it by the 1970 House of Delegates recommending that the "IMS establish a non-profit corporation which will: (a) lead in the design, financing and formation of a pilot satellite project between a rural area in need of medical services and a larger medical center; (b) this corporation is not to provide medical services, it is to aid the two communities in the formation of the satellite and its telecommunication linkage; (c) this corporation is to report to the IMS at regular intervals as to the effectiveness of the new method of delivering medical services."

In light of the establishment of the Model Rural Health Center, the Committee postponed active study of recommendations contained in the above resolution until the operation of the proposed Model can be evaluated.

M. E. OLSEN, M.D., *Chairman*

COMMITTEE ON DRUG ABUSE

In light of the increasing problems relating to the use and misuse of drugs by persons of all ages, and particularly the youth of the country, this special Committee was appointed last fall to study and make recommendations with respect to support for various types of treatment and rehabilitation programs, the development of educational programs, and other appropriate projects.

The organizational meeting of the Committee was held in October, and all members had important information to present regarding educational and other programs under way in their communities—i.e., Fairfield, Decorah, Cedar Rapids, Des Moines, Fort Dodge and Iowa City. Attention was focused on (1) drug education programs which have been initiated in the schools and colleges, and (2) the establishment of peer-operated "crisis centers," with physicians, in some instances, serving as consultants.

Two students representing the College of Medicine and the College of Pharmacy at The University of Iowa met with the Committee and described "Project Speed," an educational program wherein medical and pharmacy students speak to civic and school groups throughout the state on the use and misuse of drugs.

The Committee agreed (1) that people must be made aware of the drug problems, if any, which exist in their communities, or which may develop if an apathetic attitude prevails; (2) that peer education and peer treatment are the most effective programs available, and (3) that physicians need to become knowledgable about and involved in drug education and treatment programs. In regard to the latter statement, the Committee posed the following question which needs to be carefully considered: Since the use of drugs is a social problem, what is the role of the medical profession?

Because physicians are intimately involved in prescribing drugs, the Committee feels it imperative that each physician educate himself as to the scope of the drug abuse problem. The Committee has noted that with increasing frequency, patients securing stimulant, sedative, as well as narcotic drugs through physicians' offices are "abusing" the use of the drugs, and the physician is not aware of what is occurring in this regard.

Your Committee chairman was a speaker at the second Statewide Conference on Drug Abuse which occurred on October 7 in Des Moines under the sponsorship of the Iowa Health Council. This Council includes the IMS in its membership.

The "In the Public Interest" section of the November IMS JOURNAL was devoted to the subject of drug abuse. Reprints of the article were mailed to the mass communications media and to all Iowa legislators.

A meeting of the Committee will be held in mid-February, at which time further consideration will be given to the development of educational programs, dissemination of pertinent information to physicians, the value of methadone treatment and maintenance programs and other important matters.

The Committee also plans to meet with Mr. Paul Flynn, recently appointed by the Governor to serve as Director of the State Drug Abuse Authority, to discuss ways in which the medical profession can assist him in developing programs designed to educate people about drugs, and to help people with drug problems.

ROBERT M. BITTLE, M.D., *Chairman*

COMMITTEE ON EYE CARE

The Committee on Eye Care did not meet this past year.

The Committee has received copies of model laws on protective lens from the National Society for the Prevention of Blindness, Inc. NSPB hopes to have

this legislation passed nationally. The model law requires manufacturers and those who grind and dispense glasses to use safety glass in all instances, and it makes illegal the sale of any eyeglass frame or sunglass frame which contains any form of cellulose nitrate or other highly flammable material. The Food and Drug Administration has taken action to make safety glass mandatory in virtually all new eyeglasses. The intention of FDA to bring about widespread use of shatter-resistant lenses by the general public has been generally greeted enthusiastically by the ophthalmologic profession.

The Committee has reviewed a proposed bill which the optometrists plan to support in the 1971 session of the General Assembly. The bill repeals the present section of the Iowa Code which deals with licensure of optometrists and substitutes for it language which gives broader authority to the Board of Optometric Examiners. The bill is being analyzed to determine what changes should be suggested.

As of the date of this report, no legislation has been introduced to register opticians under the Board of Medical Examiners, a concept approved by the House of Delegates. The Committee will continue to stand ready to assist in any legislative efforts in this regard.

A. H. DOWNING, M.D., *Chairman*

COMMITTEE ON GROUP INSURANCE

The Iowa Medical Society provides several group insurance programs for its members. The Blue Cross-Blue Shield Statewide Physicians Group Program has changed substantially. In the past, physician members have had six different contract combinations from which to choose, with either $100 or $200 deductible Blue Cross, and $50 or $100 deductible Blue Shield. In an effort to provide broader coverage and to streamline administration, a new contract with more complete coverage is now being offered.

Effective January 1, 1971, the new contract features 365-Day Comprehensive Blue Cross coverage. Instead of a deductible, there is an 80/20 per cent co-insurance clause. The physician is liable for 20 per cent of the charges with a maximum liability of $250 for any one confinement. The Blue Shield coverage provides for a 365-Day Comprehensive coverage with no deductible or co-insurance. The monthly rates for this coverage are $12.55 for a single contract and $26.10 for a family contract. Payments may be made quarterly, semi-annually or annually. Physicians are eligible for the benefits within 90 days of joining the Iowa Medical Society without underwriting requirements. Members applying at any other time are subject to underwriting.

Latest experience report (7-1-69 to 7-1-70) of the Statewide Physicians Group Program shows 359 Blue Cross and 814 Blue Shield claims were submitted and processed. The Blue Cross coverage involved 2,711 total days of hospitalization for an aggregate cost of $119,720.48. Of these Blue Cross claims, 259 were inpatient and 100 were outpatient cases. The total sum paid out during this period for Blue Shield coverage was $47,587.18. The total income reported from the Physicians Group was $117,831.25 for Blue Cross and $46,106.85 for Blue Shield coverage.

The Prouty Company of Des Moines continues to serve as administrator of the Group Accident and Sickness Disability Income and Life Insurance Programs sponsored by the Iowa Medical Society. The Group Life Insurance Program provides important low cost protection to all insured members. Its features include a conversion privilege which permits a shift to permanent insurance without evidence of insurability. The Life Program is underwritten by The Bankers Life of Des Moines. The Prouty Company also continues to offer to members of the Woman's Auxiliary term life insurance on a group basis. The Prouty Company is also authorized to offer to IMS members an HR-10 (Keogh) Retirement Program. Offered through the Prouty Company by The Bankers Life of Des Moines, the program does not carry any Society endorsement or sponsorship requirements or obligations; it merely is available to those physicians who may be interested.

Since professional liability insurance continues to concern physicians in Iowa, the Board of Trustees of the IMS has devised a questionnaire to be sent to Iowa physicians for the purpose of determining claims experience for the past five years. The survey findings will be used in anticipated discussions with professional liability carriers.

R. S. GERARD, II, M.D., *Chairman*

COMMITTEE ON HEALTH PLANNING PROGRAMS

Although no meetings of the Health Planning Programs Committee occurred this past year, several members of the Committee have been involved with those state agencies active in health planning—the Health Planning Council of Iowa, the Iowa Regional Medical Program and the State Office for Comprehensive Health Planning. HPCI is a voluntary organization, spearheaded by the Iowa Medical Society, which functions to promote and assist the development of Iowa health planning organizations and programs on a local and areawide basis; IRMP was established under P.L. 89-239 to act as a catalyst and stimulus to physicians, nurses and other health providers in speeding wide utilization of the latest developments in prevention, treatment and rehabilitation of heart, cancer, stroke and related diseases, and it is also involved in operational programs; OCHP was established under P.L. 89-749 to promote and support state and areawide health planning that will assure comprehensive health services of high quality to every person in the state.

In addition to John Sunderbruch, M.D., IMS President, and Terry Dynes, M.D., the 12 district councilors serve as official representatives of the Society on the Iowa Regional Advisory Group. Ten physicians representing other organizations also serve on the Advisory Group. In addition, 126 physicians, most of whom are in private practice, have accepted specific committee assignments, or are involved in specific projects.

Harry B. Weinberg, M.D., IRMP Coordinator, attended the February 24 meeting of the Society's Executive Council and presented a brief report encouraging physician participation in the Advisory Group.

Dr. Sunderbruch also represents the IMS on the OCHP Advisory Council, and another physician is to be appointed at an early date, based on recommendations submitted by the Society. The OCHP Council recently approved "Recommendations Concerning the Improvement of Health Manpower in Iowa." Copies of this report have been provided to the Committee for comment. In addition, the Executive Committee of the Society's Task Force on Medical Manpower is preparing a critique of the report, based on official

IMS actions and position, and it will be provided to the Advisory Council.

Your Committee chairman was privileged to be re-elected President of HPCI for 1970-71. The Society, along with other interested agencies and organizations, continues to provide substantial financial support to HPCI.

As a direct result of assistance and guidance from HPCI, there are now 17 voluntary areawide health planning councils in the state. As a major project last year, HPCI, with cooperation from OCHP and The University of Iowa, sponsored a three-day workshop in Iowa City for representatives of areawide planning councils. Over 100 individuals—professional and lay—participated. Plans are now underway to conduct similar sessions on a regional basis.

The Committee recognizes the importance of maintaining close liaison with HPCI, IRMP and OCHP with the objective of providing expert medical advice and leadership as health planning programs are developed and implemented.

HOMER L. SKINNER, M.D., *Chairman*

HISTORICAL COMMITTEE

A meeting of the Historical Committee scheduled in December was postponed due to inclement weather. Another session will be arranged at an early date, at which time attention will be given to a manuscript prepared by a member of the Committee, G. E. Morrissey, M.D. Dr. Morrissey's paper deals with the history of organized medicine.

The Committee hopes to find ways to stimulate members of the IMS to record their experiences and their recollections of how medicine was practiced in the past. In this way we can maintain a record of Iowa's medical history. Pertinent manuscripts will be published in the Society's JOURNAL.

OTTO N. GLESNE, M.D., *Chairman*

COMMITTEE ON INDEPENDENT LABORATORIES

In 1969-70 the Committee on Independent Laboratories was successful in stimulating the appointment of a Laboratory Advisory Committee to the State Department of Health. Unfortunately, this eight-member Advisory Committee has yet to be utilized by the Department. Three members of this Advisory Committee serve on the Society's Committee on Independent Laboratories. The Committee was appointed just before a change in State Commissioners of Health occurred, and this may have had a bearing on its limited use.

While the Committee on Independent Laboratories has not met formally this year, there are several matters to which its members have given attention. Perhaps the most significant matter has been the grant request of the State Hygienic Laboratory. This request has sought funding for the Iowa Clinical Laboratory Performance Evaluation and Improvement Program. The request to the Iowa Regional Medical Program was first rejected in October. Subsequent to this rejection, joint effort by the State Hygienic Laboratory and members of the Committee, also representing the Iowa Association of Pathologists, caused the grant application to be re-drafted. In its re-drafted form the grant application has come to involve the co-sponsorship of the Iowa Association of Pathologists. The application was re-submitted to the IRMP in January and now has the approval of this agency; it has been forwarded for consideration at the federal level. Its fate from this point is in doubt; there are grounds for some pessimism in terms of funding.

The subject of state licensure for medical laboratories and/or laboratory personnel continues to come up periodically. No specific effort to achieve licensure of this type is known to be under way at the moment. In a recent action the Iowa Association of Blood Banks endorsed the position of the IAP and the IMS which opposes the licensure of medical laboratories and medical laboratory personnel.

Three representatives of the Committee continue to form a subcommittee to provide liaison to the Iowa Society of Medical Technologists. Recent efforts by these representatives to re-establish this liaison have been unsuccessful; these efforts will be continued as possible.

K. E. LISTER, M.D., *Chairman*

COMMITTEE ON INDUSTRIAL HEALTH

The Committee on Industrial Health has recently finished compiling an informal roster of Iowa physicians who practice at least some industrial medicine. This roster has been assembled from information supplied by county medical societies. In 1970 the Committee sent questionnaires to county society presidents asking them to list those physicians in their counties involved full- or part-time in industrial medicine.

Survey responses were returned by approximately 70 county societies. While only a very few of the county responses (4) indicated local physicians were practicing full-time at a plant or factory, no less than 44 counties reported physicians who provide all the medical work (physical exams, injuries, etc.) for a plant or factory, but do not go to the plant regularly, providing the service rather from an office or clinic. Only seven counties reported physicians working part-time at a plant or factory. Several larger county societies did not answer the survey.

The survey seems to bear out the Committee's supposition that Iowa physicians are providing medical coverage to industry but are not doing so on a particularly formal or full-time basis.

Information from the survey has been provided to the Department of Continuing Medical Education at The U. of I. College of Medicine. The Department is giving some preliminary thought to a short course on industrial medical problems.

It is anticipated the survey findings will be retained in the Committee's files to be used as possible to assist with projects such as the one noted in the preceding paragraph.

The Committee wishes to advise the House of Delegates that Mr. Harry Dahl, Jr., has resigned as Iowa Industrial Commissioner. As this report is prepared no successor has been named. The Committee has had the opportunity to confer with Mr. Dahl on several occasions, and it wishes him well as he begins a private practice of law. It might be noted here that the Ninth Annual Workmen's Compensation Symposium was held in Des Moines March 4 and 5. Iowa is one of two states to hold a regular meeting of this type for representatives of labor, business, insurance, and the medical and legal professions.

The Committee has been provided from the AMA several reference items having to do with safety glazing in hazardous locations. One is a model bill which seeks to protect the consumer and encourage high standards of construction safety by requiring the use of

safety glazing materials in hazardous locations in residential, commercial or public buildings.

The Society and the Committee on Industrial Health were represented at the 1970 meeting of Chairmen of State Industrial Committees held in Los Angeles in conjunction with the 30th Annual AMA Congress on Occupational Health. Topics discussed included safety and health standards for coal miners, Workmen's Compensation, and the registry of new diseases or afflictions.

C. H. JOHNSTON, M.D., *Chairman*

IOWA BAR LIAISON COMMITTEE

No matters have been referred to the Iowa Bar Liaison Committee within the past year, and thus the Committee has not met.

It may be worth noting that the Society has ongoing communication with the Iowa Bar Association in various ways. For example, there is now in progress a joint study of Iowa commitment laws involving the Society's Subcommittee on Psychiatric Care and the Committee on Law and the Behavioral Sciences of the Bar Association. The joint committee has met three times this past year.

Developments in the professional liability area have been followed closely the past several years. Informational contacts have been made this year with malpractice carriers to get first-hand data on premiums, claims, loss experience, etc. Under serious consideration at this time is a survey of Iowa physicians to attempt to determine the five-year professional liability experience in the state.

R. P. LAGONI, M.D., *Chairman*

MEDICAL ASSISTANTS' ADVISORY COMMITTEE

The Iowa Medical Society was privileged to have a part both in the annual meeting of the Iowa Chapter, American Association of Medical Assistants held in Waterloo, May 15-17, and in the annual convention of the American Association of Medical Assistants. The national meeting was hosted by the Iowa chapter in Des Moines, October 28-31.

Society representatives attended the state meeting of the medical assistants organization, and a special exhibit was displayed.

John Sunderbruch, M.D., President, addressed the delegates to the national convention at a special luncheon. The Society cooperated with Blue Shield in sponsoring "continental breakfasts" for those in attendance, and IMS staff also assisted the convention's program committee in various ways.

Mrs. Jeanne Green, of Davenport, a medical assistant to your Committee chairman, was honored at the Des Moines meeting by being elected a trustee of AAMA.

As has been their custom, the medical assistants will sponsor a coffee bar at the opening session of the 1971 House of Delegates. The IMS is grateful for this thoughtfulness.

The Committee is certain it speaks for all physicians in commending the members of the Iowa Chapter, AAMA for their many worthwhile services and activities.

JAMES F. BISHOP, M.D., *Chairman*

COMMITTEE ON MEDICINE AND RELIGION

Mr. Arne Larson, Director, Department of Medicine and Religion, American Medical Association, met with the Committee last spring to review recent developments in the field of medicine and religion, and to discuss potential projects.

The Committee previewed a new AMA film titled *A Storm/A Strife* and an announcement of the film's availability to county medical societies was published in the IMS JOURNAL. Any physician or county society interested in scheduling the film is encouraged to contact the Committee at IMS Headquarters.

Consideration was given by the Committee to various subjects that might be included in future physician education programs developed by the IMS and by The University of Iowa College of Medicine. Subjects recommended for inclusion in the IMS Annual Meeting program and the College of Medicine's General Practice Refresher Course included "crisis of the dying patient," "drug abuse," and "counseling." Appropriate contacts were made by the Committee chairman in this regard, and the Committee is pleased there will be some emphasis on the important problem of drug abuse at this Annual Meeting.

The Committee is cooperating with the AMA in attempting to develop pastoral-clinical training programs at two theological seminaries in Dubuque. Preliminary meetings between AMA representatives, the Committee, and the county medical society have been held to consider implementation of such a program, which must have county society approval.

Your Committee chairman plans to attend an AMA regional workshop in Chicago on February 13.

The Committee wishes to emphasize that the basic objective of the medicine and religion program initiated by the AMA is to create a climate for communication between the physician and the clergyman that will lead to the most effective care and treatment of

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the patient; in addition, participation in medicine and religion programs can have significant public relations impact.

The Committee urges each county medical society to establish some mechanism for maintaining continuing contact with local clergymen via formal and informal gatherings so that matters of mutual interest can be discussed in a candid and forthright way.

PAUL FERGUSON, M.D., *Chairman*

SPECIAL STUDY COMMITTEE ON MD/DO EDUCATION

The Special Study Committee on MD/DO Education was appointed last fall to recommend an IMS position on the proposal to appropriate state funds (8 to 10 million dollars) to assist the College of Osteopathic Medicine and Surgery in Des Moines in constructing and equipping an enlarged teaching facility. A Senate Joint Resolution (1005) was approved by the 1970 Iowa General Assembly which urged the current Assembly to give early consideration to authorizing adequate funds to COMS. Also, a special study committee of the Health Planning Council of Central Iowa recommended that legislation be enacted "to make COMS a public institution," under certain specified provisions.

As reported to the membership in an IMS NEWS BULLETIN (December 29, 1970), the Executive Council approved the following position of the IMS, based on recommendations of this Committee and the Committee on Legislation: "The Iowa Medical Society will not oppose state funding for COMS so long as assurances can be given that the University of Iowa College of Medicine will continue to receive adequate financial support for its existing and projected programs of medical education, which envision expansion of the entering class to 200 students."

JOHN H. KELLEY, M.D., *Chairman*

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

The Committee on National Emergency Medical Service did not meet this past year. However, the Committee wishes to remind physicians of the availability, through the State Department of Health, of a 50-bed natural disaster portable hospital, which is designed for quick dispatch whenever and wherever there is a need within the State of Iowa following a natural or man-made disaster—tornado, flood, explosion, etc. A utilization plan was developed by the Health Department in consultation with this Committee. Copies of the plan have been distributed to all county medical societies.

ROBERT C. LARIMER, M.D., *Chairman*

COMMITTEE ON ONCOLOGY

The Committee on Oncology did not meet this past year inasmuch as no specific items were referred to it.

The Committee took an interest in a resolution considered by the House of Delegates of the American Medical Association which called for the "establishment of a committee or commission on cancer to serve as a central agency to coordinate the efforts of state cancer committees, and to promote more productive channeling of research efforts for the purpose of eliminating unnecessary duplication of effort."

The AMA House rejected the resolution, noting that the AMA does not create committees to deal with specific diseases; that many state associations have established cancer committees that are functioning effectively at the local level; that cancer as an entity is competently dealt with at the national level by the American Cancer Society and the American College of Surgeons.

Representatives of the Committee will continue to cooperate with other organizations and agencies—e.g., Iowa Regional Medical Program, Iowa Chapter, American Cancer Society—on important matters relating to cancer control, etc.

GILBERT R. CLARK, M.D., *Chairman*

ORGAN TRANSPLANTATION COMMITTEE

During the past year renal transplantation has been done at the University of Iowa Medical Center on 17 occasions. Sixteen of the patients are living with well functioning kidneys. William Bonney, M.D., coordinator of the transplant program, plans to expand the program considerably if an adequate supply of cadaver kidneys can be found.

Dr. Bonney and Richard Lawton, M.D., with the help of the Regional Medical Program and with the support of the Iowa Medical Society, are contacting larger community hospitals in the state in an effort to develop mechanisms by which cadaver kidneys from communities other than Iowa City can be used for transplantation.

Because cadaver kidneys have been difficult to obtain, a large number of Iowans with uremia are being treated with dialysis. Most of these patients are being treated in Iowa City or on home dialysis programs. This past year, in an effort to make dialysis therapy more efficient and economical, several additional dialysis centers have been established in the state. Sioux City has had dialysis facilities for a number of years. More recently, facilities and interested personnel have appeared in Davenport, Ames, Waterloo and Fort Dodge to deal with local dialysis problems.

A major problem confronting the patient on chronic dialysis is cost. The Iowa General Assembly now has under consideration a bill to help the indigent patient deal with the cost of chronic dialysis while awaiting transplantation. The demands for both facilities and money in this program have outstripped the resources available. If renal transplantation in Iowa is to reach its potential means must be found to handle the large backload of patients with end stage kidney disease.

A meeting of the Committee is scheduled for the end of this month. Should this meeting produce information of importance to the House of Delegates, it will be presented in the form of a supplemental report.

WALTER M. KIRKENDALL, M.D., *Chairman*

OSTEOPATHIC AND MD/DO LIAISON COMMITTEES

Both the Osteopathic Committee and the MD/DO Liaison Committee met on January 13, 1971. The Committees were briefed on recent developments between MD's and DO's. During this year, by a change in Blue Shield By-Laws, osteopaths have been given the opportunity to become Blue Shield participating physicians. We understand that many of the eligible DO's are signing participating agreements. The IMS Osteopathic Committee reviewed the background matters leading to the IMS position on state funding of the Des Moines College of Osteopathic Medicine and Surgery. The IMS Executive Council adopted the following resolution: "The Iowa Medical Society will not op-

pose efforts by the Des Moines College of Osteopathic Medicine and Surgery to obtain tax support from the State of Iowa so long as assurances can be given that the University of Iowa College of Medicine will continue to receive adequate financial support for its existing and projected programs of medical education, which envision expansion of the entering class to 200 students at the earliest possible date."

In view of IMS membership now being available for qualified osteopaths, the question of continuation of the Evaluation and Enrollment Program was discussed, but no formal action was taken. The current status of the Evaluation and Enrollment Program is as follows:

Approved by the IMS Judicial Council	169
Approved by the County Medical Society but not by IMS Judicial Council	0
Disapproved by the IMS Judicial Council	14
Hearings held by MD/DO Liaison Committee on appeal from disapproval by IMS Judicial Council	7
Hearings pending	0
No reply from county or pending	6

The Committee will continue to observe developments at both the national and local level relating to the relationship between MD's and DO's and report matters of importance to the House of Delegates as indicated.

J. M. RHODES, M.D., *Chairman*

COMMITTEE ON PARAMEDICAL SERVICES

While the Committee on Paramedical Services has been relatively inactive in recent years, it is in order in this report to mention briefly the Society's interests in this broad area.

Several Iowa paramedical bodies either have licensure legislation introduced in the Iowa General Assembly or are understood to have such legislation in the preparatory stages. The psychologists, for example, have had introduced a bill which (1) calls for their state registration, and which (2) establishes a psychology examining board. The Society's Subcommittee on Psychiatric Care has met with representatives of the psychologists and has generally opposed this move which is nearly synonymous to licensure.

The efforts of the opticians to establish a state registration program under the Board of Medical Examiners appear unlikely to reach fruition during this session of the General Assembly. In this general area also, the optometrists have indicated their intention to seek a complete revision of their practice act. The Society will continue to follow developments in these several areas through the Committee on Legislation and other special committees.

The national interest in the new physician's assistant designation has prompted the Society to appoint a special committee to study the training, qualifications and responsibilities of those seeking employment in this area of work. There is now before the Iowa General Assembly legislation to put this matter under the jurisdiction of the Board of Medical Examiners.

At the national level a moratorium has been recommended on the licensure of paramedical workers until a review can be made of the total health care spectrum. This action has been recommended by both the American Medical Association and the American Hospital Association.

It would be appropriate to mention that the American Association of Medical Assistants conducted a successful national meeting in Des Moines last October. The Iowa Medical Society assisted with the convention in several ways.

The Society continues to be a principal participant in the Iowa Health Council, an organization made up of nine state organizations concerned with the delivery of health care.

J. T. BAKODY, M.D., *Chairman*

PHYSICIANS' ASSISTANTS COMMITTEE

The Physicians' Assistants Committee was appointed late last year to give careful study to the various problems and questions associated with the delegation of selected duties and functions traditionally performed by physicians, and the education and training of non-physicians *(physicians' assistants)* to perform these selected duties and functions.

Various informational reports on this subject have been reviewed by the Committee; a report has been presented on a survey of Iowa physicians to determine their views and reactions to utilizing the services of physicians' assistants; the Committee chairman attended a special program on physicians' assistants, held in conjunction with the AMA Congress on Medical Education; and two sessions have been held with Senator John Tapscott and Representative Vince Mayberry, sponsors of a Physicians' Assistants Bill introduced to the 64th Iowa General Assembly.

The Committee is well aware of the many important questions that require consideration, and which will take time to answer—e.g., What is to be the exact role of the physician's assistant? How is he to be trained and what is he to do? What areas in Iowa are in need of such personnel and what will be the demand? How will the consumer accept the physician's assistant? What "status" shall be given to the physician's assistant in order to attract and retain personnel in this field? What long-range prospects and problems are involved with respect to possible attempt to permit the physician's assistant to function as an independent practitioner?

The importance of "experimentation" and the need for flexibility in the initial development of physicians' assistants programs and enabling state legislation are recognized and encouraged by the Committee.

The Executive Council recently approved the following recommendations of the Committee—that the IMS endorse the development of a physicians' assistants program, and support appropriate enabling legislation which would include essentially the same provisions contained in a bill drafted by the Society's legal counsel. This bill calls for administration of a physician's assistants program by the Board of Medical Examiners and Department of Health, with assistance from and consultation with a special advisory committee. Since there are no "fixed" ideas about the development of physicians' assistants programs and the exact role of the physician's assistant, the bill is sufficiently flexible so as to enable the Board to determine the exact scope of practice by physicians' assistants, the nature of the training programs, and even the designation of a title or titles for such personnel. The bill also requires that a report on the administration of the program be made to the Governor and the General Assembly in 1973, at which time further legislation may be necessary and/or considered.

As a result of the Executive Council action Society representatives will consult further with appropriate

Iowa legislators to discuss amendments to the Tapscott-Mayberry Physicians' Assistants Bill.

JOHN MACGREGOR, M.D., *Chairman*

PRECEPTOR COMMITTEE

The chairman of the IMS Preceptor Committee has met on several occasions with the Preceptor Committee of The University of Iowa College of Medicine to discuss implementation of the Preceptor Program in Iowa. As most physicians know, a primary objective of the program has been, and continues to be, to provide medical students an opportunity to gain experience in general practice, and to enhance their interest in remaining in Iowa to practice medicine.

The following requirements for student participation in the Preceptor Program, recently approved by the College of Medicine faculty, were reviewed for members of the Society's Committee at a recent meeting:

1. As in the past, present seniors are obligated to complete a four-week preceptorship in the State of Iowa, with a generalist or specialist.
2. The present juniors will be permitted to complete a two-week preceptorship either during their junior or senior year, preferably in Iowa, although approval may be given for an out-of-state experience. The program is restricted to preceptorships with general practitioners, general internists or general pediatricians, since these are the physicians involved in the delivery of primary health care.
3. The students who are now sophomores will take part in the Preceptor Program during their junior year.
4. Freshmen have no obligation to become involved in the Preceptor Program until their junior year; however, freshman students will be strongly encouraged to take a one week preceptorship, on a voluntary basis, during the summer vacation period following the freshman year.

The Committee has long felt the need for and has encouraged early involvement of medical students in the Preceptor Program, and views with pleasure item four above.

The Committee believes the Preceptor Program represents an important learning experience for both the student who intends to establish a family practice, and the student who plans to specialize, since it provides preliminary involvement in private practice at the community level, outside of the hospital, and it also gives the student an opportunity to learn firsthand some of the more practical aspects of the practice of medicine—e.g., office procedures, business methods, etc.

Members of the Society interested in serving as preceptors to junior and/or freshman students should contact the Committee chairman or Richard Caplan, M.D., Assistant Dean for Continuing Education at the College of Medicine.

The Committee also wishes to call attention to the Summer Job-Education Program sponsored by the Iowa Chapter/Student American Medical Association, in cooperation with the IMS, the Iowa Chapter, American Academy of Family Practice and the Iowa Hospital Association. It is a project designed to place freshman and entering freshman medical students in community hospitals during their vacation periods, in an effort to increase the scope of their education and to stimulate their interest in practicing in smaller communities in Iowa.

L. D. CARAWAY, M.D., *Chairman*

COMMITTEE ON QUACKERY

The IMS Committee on Quackery has held one meeting during the past year to review existing IMS policy relating to chiropractic which on a legislative level is one of maintaining the status quo.

The Committee is of the opinion that the IMS should take a more aggressive posture, specifically at the legislative level in dealing with chiropractors. A report was submitted to the Executive Council recommending support of appropriate legislation to limit and restrict the practice of chiropractic, including a specific proposal relating to all future applicants for licensure in any branch of the healing arts to be graduates of a school or college accredited by a recognized accrediting agency; further, that an informational program on the hazards of chiropractic be undertaken to the public and profession and opposition to inclusion of payment for chiropractic services in any program financed by public funds.

The Executive Council received the recommendations and suggested that since this involves a major change in IMS policy, that a report be submitted to the House of Delegates for action. The Committee on Quackery will therefore be prepared to submit a supplemental report to the House of Delegates embodying its recommendations for a change in IMS policy.

W. R. WHITMORE, M.D., *Chairman*

RURAL HEALTH COMMITTEE

A National Conference on Rural Health, sponsored by the American Medical Association, will be held in Atlanta, Georgia, March 25-26; it is anticipated a member of the IMS Committee on Rural Health will be in attendance. The Committee was represented at a similar conference last April in Madison, Wisconsin. John MacQueen, M.D., Associate Dean, University of Iowa College of Medicine, will participate in the Atlanta program and will discuss the development of a Model Rural Health Center which is referred to in the Handbook Report of the IMS Ad Hoc Committee on Delivery of Health Care to a Rural Area in Need.

A meeting of the Rural Health Committee will be arranged following the AMA Conference if there are pertinent items to consider.

M. E. OLSEN, M.D., *Chairman*

COMMITTEE ON SPORTS MEDICINE

While the Committee on Sports Medicine has not met formally this year, it has continued to be involved in several programs and projects.

For example, the Committee and the Society served as co-sponsor of a Workshop on Sports Medicine held in Iowa City November 20 and 21. The workshop provided physicians, coaches, trainers, etc., an opportunity to obtain current information on the medical aspects of sports. W. D. Paul, M.D., a member of the Society's Committee, was the workshop director. Other sponsors were The U. of I. College of Medicine and the Department of Intercollegiate Athletics.

The Committee wishes to recall that action of the 1970 IMS House of Delegates which endorsed the Committee's recommendation regarding the mandatory trial use of the Tipton formula in determining the weight of Iowa high school wrestlers. This action was made known to the Iowa High School Athletic Association and the decision regarding its implementation is still being awaited.

The member schools of the IHSAA are at this time voting on the degree to which they wish to use the weight determination formula which was devised by Charles Tipton, Ph.D., of The U. of I. Physiology Laboratory, in consultation with the Committee. The Board in Control of the IHSAA has requested individual member schools to vote (1) if they wish to make the Tipton concept mandatory on a statewide basis; (2) if they wish to make it optional or voluntary, or (3) if they wish to use some alternate approach. A simple majority of the voting schools will determine what kind of plan Iowa high schools will follow in deciding how prep wrestlers are regulated in terms of weight. The results of the referendum will be implemented this fall.

During the past year the members of the Committee were polled as to whether they thought the Society should offer its expertise to the new State Commissioner of Boxing as he formulates rules and policies to protect the boxer. The Committee indicated it favored the Society offering this consultative service. There has been no implementation of this suggestion as yet.

W. R. VAUGHAN, M.D., *Chairman*

TASK FORCE ON MEDICAL MANPOWER

Although no formal meetings of the Task Force on Medical Manpower have been held since the last Annual Meeting, efforts have been made to keep the members informed on developments in the field of health manpower.

Contact with students at and graduates of the University of Iowa College of Medicine is being maintained. Officials of the Society have appeared at various medical student conferences; officials of the Scanlon Medical Foundation/IMS have conferred with student representatives regarding loan programs; the Society has been a co-sponsor of a SAMA Medical Student Summer Job-Education Program; copies of informational materials regarding medical practice in Iowa and related subjects are provided to senior medical students, to interns who are graduates of the College of Medicine, and to physicians now serving residencies at the College. All of these activities have been undertaken in an effort to stimulate interest in returning to or remaining in Iowa to practice medicine. The Task Force is extremely pleased that the House of Delegates saw fit last year to authorize the creation of a Student Medical Society, which should also prove beneficial in attracting future physicians to Iowa.

The Executive Committee of the Task Force has developed a brief statement in response to a report recently adopted by the State Advisory Council/Office for Comprehensive Health Planning. This report is titled "Recommendations Concerning the Improvement of Health Manpower in Iowa." The Executive Committee noted that in the main the "Recommendations" contained in the report have considerable merit, although attention is directed to some questionable statements. A report approved by the IMS in 1968 on the subject of medical manpower is attached as a part of the Executive Committee's response. It is also emphasized that many committees of the Society are involved in studying various ways of assuring the continued availability and accessibility of high quality health care to the citizens of Iowa, and they would be happy to consult and cooperate with OCHP, the Health Planning Council of Iowa, and other agencies involved in health manpower and health planning programs.

After learning of the appointment of Mr. Allen Whitfield, a Des Moines attorney, as Chairman of a U. S. Chamber of Commerce Task Force on Health Care Delivery Systems, contact was made with him to offer the Society's full cooperation and assistance. Pertinent informational materials were also provided to Mr. Whitfield for his review.

The chairman of the Task Force on Medical Manpower will moderate a panel discussion on the use of paramedical personnel, which is scheduled on Tuesday afternoon, April 27, as a part of the 1971 Annual Meeting Program.

BYRON M. MERKEL, M.D., *Chairman*

COMMITTEE ON VOLUNTARY HEALTH AGENCIES

The Society has continued to maintain its normal ties with the state's voluntary health agencies this past year. In addition to Society liaison with these groups, Iowa physicians individually contribute much time and knowledge to various of the agency programs each year, and they benefit significantly from the participation.

The Committee has proceeded no further with the idea of providing a standardized method of recognizing the effective work of the state's voluntary agencies. This recognition idea was submitted to the 1970 IMS House of Delegates and was rejected.

As in recent years, the 1970 Iowa State Fair "Hall of Health" project provided the Society an opportunity to work with several voluntary health agencies. A number of health related organizations participate in this health education project.

C. E. SCHROCK, M.D., *Chairman*

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

The Advisory Committee to the Woman's Auxiliary commends Iowa's organization of physicians' wives for its assistance and cooperation in various programs and activities at county, state and national levels.

The Auxiliary provides the Iowa Medical Society its services whenever they are requested or needed in various health education and health team activities, as well as in other approved community programs.

Iowa's Auxiliary has been recognized at the national level this year through the election of Mrs. Max E. Olsen to the Board of Directors, and the appointments of Mrs. Howard Ellis as chairman of the AMA-ERF and Mrs. James F. Bishop as North Central Regional Mental Health chairman.

Health-career recruitment continues to be an active project of the Health Careers Committee; it sponsors Health Career Clubs in junior and senior high schools. It also supports recruitment through memorials to the American Medical Education Research Foundation, the Scanlon Medical Foundation/IMS and its own Health Education Loan Fund.

The Auxiliary's Health Education Loan Fund, well over $25,000, is a revolving fund which has been very active in financing nursing and technology students in the past year. In 1970 the fund was nearly totally committed with 20 students in schools. The fund has helped 95 students over a period of 29 years and is available to students in approved schools in the health field. Graduates repay their loans as agreed and this makes the money available for new loans. No delinquent loans are noted in a report from the efficient Committee which supervises this activity.

International Health Activities have included aid to

Iowa's sister state in Central America, Yucatan, as well as participation in service projects at home. Many county auxiliaries have collected and shipped medical and surgical instruments and other equipment to Yucatan, as well as supplies for mission hospitals and the World Health Organization.

Homebound Handcraft Sales continue as a top priority service project. The sales are held in cooperation with the Easter Seal Society of Iowa. The county auxiliary sponsors the sale in cooperation with department stores or supermarkets that make space available for the displays. The Auxiliary provides sales people and other workers to arrange for the sale. The items offered for sale are made by homebound handicapped persons under the guidance of the Easter Seal Society. The full price of each article goes to the individual who made the article. The merchandise offered for sale has greatly improved and as a result the volume of sales has increased.

Children and Youth is a new committee at all levels. This Committee has involved itself in many health fields but especially in the drug abuse area. It has cooperated with medical societies, church organizations and other service organizations in planning workshops to study the community needs of young people.

Through the Rural Health Committee the Auxiliary has entered the ecology field. It has furnished much educational material to members regarding everyday antipollution cautions and aids.

THE AUXILIARY NEWS has received many favorable comments on its new look this year and this is due to the efforts of its new editor.

The Auxiliary continues its interest in health legislation and cooperates with the IMS in informing its members in this area. Members are encouraged to exercise their right to vote and to take active part in their respective political parties. The State Auxiliary, assisted by the Polk County Auxiliary, sponsored an annual brunch or breakfast at which members of the Legislative Ladies League were entertained. The program, approved by IMS, is health oriented and from reports and the attendance each year it continues as a popular project.

The Volunteer Health Service Award is presented to a woman for her outstanding volunteer service; this has been an excellent public relations project.

Many other programs are carried on at county and state levels in areas such as mental health, safety, and disaster preparedness. All programs in which auxiliaries participate have been approved by the appropriate medical societies.

The Committee urges physicians to support the Auxiliary in every way possible, by encouraging projects and by encouraging wives to become either members of organized auxiliaries or members-at-large in those counties not yet organized.

L. J. O'BRIEN, M.D., *Chairman*

(This concludes the material that was published in the HANDBOOK FOR THE HOUSE OF DELEGATES.)

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Supplemental Reports

REMARKS OF PRESIDENT

AUDIO-VISUAL PRESENTATION
Presented by J. H. Sunderbruch, M.D.
President

(Referred to the Reference Committee on Reports of Officers.)

Early this year your officers requested the preparation of an annual report of Society activities for review by the entire membership. We have done this before, but always by means of the printed word. The degree to which our past efforts have been assimilated is anyone's guess.

This year we have taken a different tack, one we believe will be an effective contrast to what has been done previously. We would like to share the just-completed project with you at this time. Its only previous exposure has been at the April meeting of the Dubuque County Medical Society. It is scheduled in Linn County in May, and we hope it can be viewed by a majority of Iowa physicians in the 1971-72 year.

Our objective has been to show the rank-and-file IMS member in a graphic and concise fashion the breadth of the Society's program and to give him some appreciation as to how his membership payment is disbursed. We invite you to give your attention to the presentation at this time.

The Audio-Visual Presentation was then shown to the HOUSE OF DELEGATES.

BOARD OF TRUSTEES

Presented by Kenneth E. Lister, M.D.
Chairman, Board of Trustees

You have just had the broad program of the Iowa Medical Society summarized for you in a rather interesting fashion. So far as we can recall, this particular means of describing the Society's ongoing program and the actual distribution of membership payments has not been attempted before. We believe you will agree that effective interpretation of the Society's program is most important. We would welcome the reaction of the House to this presentation. And if the reaction is favorable, we would welcome the assistance of the Delegates in scheduling the presentation at many county medical society meetings this fall and winter.

Because many of the general activities of the Society are at least alluded to in the audio-visual presentation, we will request that it stand as an accounting of the ongoing program. In addition to this information, we should like to discuss in some little detail several specific areas of importance.

FINANCES—SECTION I

(Referred to the Reference Committee on Reports of Officers.)

In 1968 the House of Delegates established the fiscal policy under which the Society is now operating. The House decreed then that the Society should (1) continue its scheduled amortization of the building mortgage, (2) retain the Society's remaining unused property (adjacent lot) as the only reserve, and (3) increase dues by $25 (effective in 1969) to continue and, where necessary and feasible, expand the Society's scope of interest and activity.

The Board has been guided by this policy utterance in the administration of the Society's fiscal affairs. We can report that final payment on the building mortgage will occur in 1972; the accelerated mortgage payment program which the Society has followed will realize substantial interest savings.

Actual expenses in 1970 were more than $2,500 under the actual budget. This was accomplished primarily by staff adjustments and through the consolidation of responsibilities. Regrettably, however, the actual income of the Society fell short of the amount budgeted by more than $5,000. As a result, the Society has incurred an overall deficit of approximately $2,500. The decrease in Society income is almost entirely the result of a reduction in the number of dues-paying members.

The matter of non-dues-paying physicians is a concern to your Society officers, as it should be to you. County society officers must give increasing thought and attention to this subject; we must do all we can (1) to stimulate the participation of those professional colleagues who remain outside the ranks, and (2) to curb any further decline in Society membership and income.

A new, automatic dues billing service was instituted in 1970 by the Iowa Medical Society as a service to county societies. To date this program has been successful. More than 60 county societies decided to participate in the program's first year, and their members were billed directly for county, state and AMA dues. It is believed this program relieved the participating county societies of much time-consuming work. We encourage other counties to consider the advantages of this new dues-billing-and-collection service.

The financial picture of the JOURNAL brightened somewhat in 1970. A maximum effort is being made to decrease expenses incurred with the production of the JOURNAL and some $8,000 have been shaved from the 1969 expenditures; this has helped to offset a $5,000 reduction in advertising income.

In connection with the JOURNAL, it would be appropriate to advise the House of Delegates of the personnel change which has occurred just recently. Dennis H. Kelly, Sr., M.D., of Des Moines, for health reasons elected to conclude 10 years' service as Scientific Editor. The record should show that his service has been most conscientious and distinguished. Marion E. Alberts, M.D., also of Des Moines, has succeeded Dr. Kelly in this post. Dr. Alberts has served on the Scientific Editorial Panel.

The Board will continue to experiment with the format of JOURNAL (1) to improve its financial picture, and (2) to assure Iowa physicians a reputable vehicle for publishing their scientific and other writings. Efforts to coordinate journal production through the North Central Medical Conference are still going forward but no definite plan has been agreed upon.

Annual sessions of the Iowa General Assembly have added to the Society's financial load, and there is no apparent relief in sight here. Only through constant vigilance by your officers, committees and staff can physicians be certain their best interests are represented in the all-important legislative arena.

As has been the case for some time, six items constitute the bulk of the Society's operating expenses. These are (1) salaries, (2) building interest and principal, (3) committee work, (4) officer and staff travel, (5) JOURNAL, and (6) taxes.

The 1971 estimated budget is in excess of anticipated income. The accelerated building amortization program is the justification for allowing this condition to exist. Once this obligation is met, the bulk of these resources, except those actually set aside for deprecia-

tion, can be used to underwrite other Society activities and, hopefully, put us in the black.

On the basis of the information presented here, the Board of Trustees recommends that 1972 dues be maintained at their present level.

BLUE SHIELD—SECTION II

(Referred to the Reference Committee on Insurance and Medical Service.)

In 1970 Iowa Blue Shield reached an historical milestone by enrolling its one millionth subscriber. Merge this responsibility for one million Blue Shield patrons with additional duties (1) as Medicare carrier for approximately 360,000 Iowans, and (2) as intermediary for from 80,000 to 100,000 Medicaid recipients and you quickly see the extent of the impact Blue Shield has on the Iowa health care picture.

As was noted at some length in the slide presentation, the Society maintains close contact with Blue Shield, at both officer and staff levels. Society representatives attend meetings of the Blue Shield Board of Directors and their designees attend IMS Executive Council sessions. In addition, the Board of Trustees has met with the three IMS Liaison Delegates to the Blue Shield Board to discuss pressing matters.

In their 1970 report to the House of Delegates, Blue Shield officers listed six priorities:

(1) The application of the usual, customary and reasonable concept to the greatest extent possible.

(2) The upgrading of Blue Shield subscriber coverage, and conversely, the continued reduction of low level contracts.

(3) The demonstration of a responsiveness to the demands of the marketplace, to include coverages for mental health, major medical, etc.

(4) The more extensive and effective use of the Quality Assurance Program and peer review to sustain ethical values and protect against abuse and over-utilization.

(5) The continued effort to increase the administrative efficiency of Medicare and Medicaid.

(6) The development of a sound total program to utilize the talents of all Iowa physicians to serve the citizens of the state.

Progress has been made in each of these areas. Blue Shield has continued to market more complete and comprehensive contracts, and there has been a continued reduction in the number of low level service income contracts. Specifically, there are now 643,000 subscribers under Comprehensive-UCR type coverage and 379,000 holding older service contracts.

Claims processing time for both Medicare and Medicaid has been reduced significantly. Pending Medicare claims are at the lowest level since the beginning of the program. Restrictive and arbitrary governmental regulations continue as a source of irritation, but Blue Shield is obliged to receive and implement them.

The joint IMS-Blue Shield Field Service Program serves a first-line effort to provide personal liaison with practicing physicians. In addition to information disseminated by the field staff, the recently innovated Blue Shield WATS program has proved successful. We are advised that physicians are utilizing this means of obtaining information quickly.

The two high-level Blue Shield contracts—Comprehensive and Usual, Customary and Reasonable—represent the principal area of physician concern at this time. The Blue Shield Comprehensive contract replaced the Blue Chip program several years ago. Under Comprehensive, a Blue Shield participating physician is paid his usual and customary fee and the patient of the non-participating physician receives reimbursement for the physician's services based on $5 a unit in the Blue Shield Unit Index.

Experience with the Comprehensive program has manifested substantial concern over the differential in payment determinations between participating and non-participating physicians. This concern has been expressed by both Society members and Blue Shield subscribers.

In 1968, because of the expressed concern over the Comprehensive contract, the House of Delegates authorized experimentation with a Usual, Customary and Reasonable contract. In this program the value assigned to the services of the participating and non-participating physician is identical. The House has noted previously that the term "reasonable" in the UCR program represents a control element and that physicians' charges are related to other physicians of similar skill and training within a particular geographical area. The Society has urged use of the peer review program to make recommendations on those physicians' charges falling outside the reasonable perimeters.

In 1969, and again in 1970, the House of Delegates received reports which attempted to summarize all aspects of the UCR program. For further clarification, the important aspects of the UCR program are:

(1) All physicians, be they Blue Shield participating or non-participating, have their services valued on the basis of usual, customary and reasonable.

(2) When a physician questions a Blue Shield UCR payment determination, he is encouraged to ask Blue Shield to submit the claim for review by the appropriate Society District Peer Review Committee. This concept is one strongly endorsed by the Iowa Medical Society.

(3) The physician is asked to accept the UCR determination of Blue Shield and/or the District Peer Review Committee finding as full payment for covered services except when he has a prior agreement with the patient as to payment of his full fee.

Blue Shield is updating its UCR charge data on a regular basis and thus is maintaining a current picture of the fees of Iowa physicians. An up-date occurred just this month and it will again in six months. The rapid growth of the UCR program has been accompanied by numerous questions from physicians.

Past actions of the House of Delegates support the UCR contract and urge Blue Shield to base all of its coverage on the UCR concept. The Board feels the House should be reminded once again of two facets of the UCR contract which prompt the most questions. These are the "hold harmless" and "prior agreement" provisions.

The UCR "hold harmless" clause requires the physician, be he participating or not, to accept Blue Shield payment as payment in full. Any question on a fee is to be resolved by the physician and Blue Shield with the advice and recommendations of the Iowa Medical Society peer review mechanism. The "hold harmless" provision is not applicable in instances where the physician has a "prior agreement" with his patient. This enables him to collect his full charge regardless of the payment determination made by Blue Shield. These concepts have been endorsed by the House of Delegates.

We are advised that Blue Shield is now attempting to define more clearly the terms "hold harmless" and "prior agreement" in an effort to reduce confusion.

Most physicians are aware of the national attention now being directed to the health maintenance organization. In his health message to Congress, President Nixon urged experimentation with the HMO concept. HMO's have been characterized in various ways, but generally they are regarded as closed-panel, capitation-type programs. When considered broadly, the HMO can be made to encompass time-honored fee-for-service and freedom of choice principles. The American Medical Association and the Iowa Medical Society are both giving detailed attention to this entire subject inasmuch as it could bring about significant change in health care delivery and financing.

In an action taken this month, the Executive Council recommended that Blue Shield study the feasibility of serving as an HMO, with assistance and counsel from the IMS. This action was taken during the consideration of a Legislative Committee report in which it was pointed out that Iowa is one of several states which now prohibit Kaiser-Permanente or similar closed-panel capitation programs. In its report the Legislative Committee recommended the Society explore alternatives to permit, on an experimental basis, the operation of an HMO in Iowa, with the medical profession retaining control over the delivery of medical services. Changes in the Iowa Code would have to precede this experimentation.

This subject has been discussed with officers of Blue Shield at a recent meeting of the Society's Board of Trustees. The Blue Shield officers responded favorably to the suggestion of the Board that it (Blue Shield) explore the feasibility of serving as an HMO on an experimental basis. As has been mentioned, the Society's Executive Council supported this recommendation.

Considerable pressure is building to clear the way for HMO's in Iowa. The Board believes this subject must receive priority attention if the physician's role as captain of the health team is to be preserved. This subject will receive additional attention in the Supplemental Report of the Legislative Committee.

PROFESSIONAL LIABILITY INSURANCE—SECTION III

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

This vexing problem has been the subject of extensive discussion by the Board of Trustees. The Society has heard from a number of Iowa physicians about soaring malpractice premiums, and your officers have tried to stay abreast of developments elsewhere, many of which are much more disconcerting than those in Iowa.

We can report that the AMA is actively pursuing its mandate to seek to establish a national professional liability program in cooperation with interested state medical societies. The AMA is now in active negotiation with Continental, Travelers and others. The AMA is also exploring with seven insurance carriers the desirability of establishing a non-governmental national data bank on professional liability.

The Nixon administration has acknowledged the gravity of this subject. The President, in his health message, directed the Secretary of HEW to convene a Commission on Medical Malpractice to undertake a program of intensive research and analysis. The Commission's report—with specific recommendations—is due March 1, 1972.

The Society this year has been involved in several ways in trying to get a handle on this problem.

(1) There has been periodic contact with the Iowa representatives of those carriers providing coverage in the state. These individuals are very much sensitized to the concern of the medical profession about the trends of the day.

(2) There has occurred a meeting with several Des Moines attorneys who are called on regularly to represent physicians in malpractice suits. This session was for the purpose of considering several legislative suggestions to possibly reduce the magnitude of the problem. Stressed by the lawyers at this session was the need for defense attorneys to have greater educational opportunities to offset the extensive educational programming for plaintiff's attorneys.

(3) There has been conducted by the Society recently a survey of the membership to ascertain first-hand the extent of the malpractice activity in the state. As this report is prepared, almost exactly 50 per cent of the surveys are in hand; while this is a good number of returns as surveys go, we still are anxious to receive additional returns.

Preliminary evaluation of the survey shows that of the 1,118 returns, 1,004 report no malpractice claims during the period from 1965 to 1970. A total of 148 claims are noted on the surveys on the following basis: 1965—23, 1966—10, 1967—16, 1968—22, 1969—22, and 1970—56. The figure for 1970 suggests an alarming increase in claims. These 148 claims were described as follows: settled—44, threatened—13, dropped—40, won case—9, and pending—41.

To how great an extent this data will be useful remains to be seen. As has been stated, it will be helpful in future contacts with malpractice carriers.

This is a most difficult area and one for which there are no readily apparent answers. It will continue to receive careful attention.

FOUNDATION FOR MEDICAL CARE—SECTION IV

(Referred to the Reference Committee on Foundation for Medical Care.)

There is little need to recite that which has transpired the past 12 months with respect to the consideration which has been given to the Iowa Foundation for Medical Care. This is familiar to each of you.

On January 24, this House of Delegates authorized the establishment of an Iowa Foundation for Medical Care. In taking this action, the House assigned the Board of Trustees responsibility for preparing the necessary organizational documents for presentation, review and ratification by the House of Delegates at this session.

You have been provided copies of this material and it has also been published in the April issue of the JOURNAL. A copy has been included in your packet for reference as desired during this session.

The subject is now before you for your consideration. The Board has arranged for two experts, one from California and one from Minnesota, to be present to offer information that may be desired.

Let me leave the matter for your further deliberation by declaring that the Board of Trustees conceive of the Foundation as (1) a voluntary organization, (2) a flexible instrument, (3) a proponent of comprehensive care, (4) an instrument for professional education, (5) a professional mechanism to identify standards and norms, (6) a central comprehensive data bank, (7) a peer review mechanism, (8) *a strong negotiating agent for the physician,* and (9) an entity totally of the medical profession. By contrast, the Foundation will NOT (1) subject physicians to regimented fee schedules, (2) perform judicial functions,

(3) engage in massive claims payment and review, and (4) assume fiscal risks.

The four subjects (Finance, Blue Shield, Malpractice, and Foundation for Medical Care) I have just discussed are ones your officers believe to be most pressing at this moment. There are other topics very nearly as important which deserve our careful attention, many of these are discussed in the committee reports which are included in your HANDBOOK. I refer to such subjects as medical manpower, MD-DO relations, physicians' assistants, peer review, relations with the College of Medicine, health care planning, and so forth.

Incidentally, you have in your packet a new copy of the Society's Articles of Incorporation and By-Laws. This is the first re-printing of these documents in approximately 10 years and incorporated, of course, are the changes which have been made during this period.

Let us conclude by advising that members of the Board of Trustees will be readily available throughout these sessions, at the Reference Committee hearings and elsewhere, to answer any inquiries you may have. Thank you.

* * *

Kenneth E. Lister, M.D., Chairman, IMS Board of Trustees, next presented a check in the amount of $10,369.12, to John W. Eckstein, M.D., Dean, U. of I. College of Medicine. The check was presented on behalf of the American Medical Association Educational Research Foundation. Dr. Eckstein acknowledged the gift and addressed the House of Delegates.

DR JOHN W. ECKSTEIN

Thank you very much, Dr. Lister. It's always a pleasure to receive money.

Mr. Speaker, Officers, Members of the House, students, people behind the restraining ropes, I would like to make a few comments. During the past year at the College of Medicine we have strengthened and improved a number of our educational programs. We are completing the second year of our new curriculum. This has been a trying time for the students as well as the faculty. A new venture such as this requires a great deal of debugging, and both students and faculty have exhibited great patience. The College has filled vacant headships in major departments.

Dr. James Clifton became head of Internal Medicine about a year ago. Since July 1 we have appointed Dr. George Penick as head of Pathology, Dr. J. P. Long as head of Pharmacology, Dr. Robert E. Condon as head of Surgery, Dr. Robert E. Rakel as head of Family Practice, and Dr. George Winokur as head of Psychiatry. These are strong individuals with established records as teachers and scholars. We are fortunate to have this kind of academic leadership. I had hoped that our searches were nearing an end. This is a grueling kind of activity. We do, however, have a committee searching for a successor to Dr. Franklin Top who retires this year as head of Preventive Medicine. We have just appointed a committee to search for a successor of Dr. William Rieke as head of Anatomy. Dr. Rieke was interim Dean for a year as well as head of Anatomy and Chairman of the Executive Committee.

We are sorry he is leaving, but we are proud of the

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9132 Dorcas Street, Omaha, Nebraska Telephone: (Area Code 402) 393-5797
Mailing Address: Elmwood Station, Box 6076, Omaha, Nebraska 68106

fact that he will become Vice-Chancellor for Health Affairs at Kansas.

I'm pleased to report that we have added considerable strength to the Dean's office and that our staff is beginning to resemble that required for a modern medical school. Dr. Paul Seebohm became the Senior Associate Dean on July 1, 1970. Dr. Robert Barker, Professor of Biochemistry, will become Associate Dean for Academic Affairs on September 1. Dr. Richard Caplan, as you all know, joined the staff as Assistant Dean for Continuing Medical Education. Dr. George Baker became Assistant Dean for Medical Student Affairs, and Dr. Sidney Sands became Assistant Dean for Medical Education and responsible for our programs at Broadlawns. Dr. John MacQueen is continuing as Associate Dean for Community Medical Programs. Dr. Woodrow Morris continues as Associate Dean and Director of Admissions, and Dr. Richard Eckhardt continues as Assistant Dean for Veterans Hospital affairs. We have added students and practitioners to all our standing committees, and we hope to increase the participation of practicing physicians in our activities during the coming year.

It has been of particular help to the administration of the College to have a strong member of the practicing community serving actively on our Admissions Committee. We have planned new educational programs which should help to improve medical care in Iowa. These were outlined in an article in the JOURNAL in October, and I expanded our thinking about affiliations with community hospitals in the current issue of the JOURNAL. The latter article was written in January at a time when I still hoped that funds might be available to initiate some of these programs.

The prospects for financial support for new ventures at this time are gloomy to say the least. The College will have financial problems during the coming year. We have reached the limit of self support of our educational programs from earnings, and it seems unlikely that there will be anything approaching full support of the askings of the Board of Regents.

Our main hope will be the federal legislation arising from renewal of the Health Professions Educational Assistance Act. Bills have been introduced in Congress. The language is far from generous, and the lag between enacting of legislation and the implementation of its provisions will give us little relief in the coming year. The only consolation that I can see, if it really is consolation, is that nearly all medical schools face the same or more serious problems. I don't intend this to sound unduly pessimistic. We are not going to close our doors, but I am disappointed in the fact that new programs may be delayed.

Before leaving the podium I want to express my thanks to the Iowa Medical Society for the cooperation it has given to the College during the past year. Our relations with members, Executive Council, Officers and staff have been cordial and profitable to us; and I look forward to another interesting year. Thank you.

INFORMATIONAL REPORT ON THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

Kenneth E. Lister, M.D., President
Scanlon Medical Foundation/Iowa Medical Society

I am pleased to inform you the Scanlon Medical Foundation/Iowa Medical Society has continued and has expanded its work during the past 12 months. As a matter of fact, the Foundation probably has had the most active year in its history in terms of money moving through its accounts.

As you may recall, in accordance with an agreement worked out with the State Department of Health, the Foundation assisted administratively in the 1970 statewide rubella eradication program. The Foundation served as a repository for those funds contributed for the purchase of rubella vaccine. In all, slightly more than $435,000 passed through this special Foundation account in amounts ranging from 50 cents to several thousand dollars. Most of the money received was paid in turn to pharmaceutical manufacturers for vaccine. A $100,000 allocation obtained from state contingency funds by Governor Ray to initiate the program was returned to the State from proceeds received by the Foundation. The working agreement between the Foundation and the Department of Health was terminated last fall and the small cash residue, in accordance with the agreement, accrued to the Foundation for use in line with its purposes and objects.

Indulge me if you will please, if I remind you that the Scanlon Medical Foundation/Iowa Medical Society is a non-profit corporation. According to the founding language, the Foundation is to be an instrument to assist, further, promote, and contribute to the support of such charitable, educational and scientific activities and projects as are, in general, either directly or indirectly, related to health or medicine.

The Foundation Board of Directors consists of nine individuals: R. L. Wicks, M.D., Boone; J. F. Paulson, M.D., Mason City; C. W. Seibert, M.D., Waterloo; W. M. Krigsten, M.D., Sioux City; L. H. Jacques, M.D., Iowa City; E. Howard Hill, Minburn; Ronald V. Saf, Des Moines; D. L. Taylor, Des Moines, and yours truly. The composition of the Board will change slightly this Wednesday when the election of Society officers occurs.

The Foundation Board has been active this past year; it met most recently on February 17 in Iowa City, and it will hold its Annual Meeting tomorrow afternoon here in Des Moines.

While the Foundation has diversified its activities to some degree in recent years, the medical student loan program continues as its principal endeavor. There are 12 medical students now receiving Foundation loans, and in 1970 the amount loaned to these aspiring physicians totalled $26,040. In the loan program's history 241 medical students have received loans totalling in excess of $385,000. As of last December 31, 139 of the loans had been repaid in full and 102 were still outstanding. Of the money revolving through the Foundation loan program, slightly over $50,000 is on loan to the Foundation from county medical societies, specialty groups and individual physicians.

The Foundation Board is extremely grateful to have been allowed the use of this money. It is our hope that additional sums, either on loan or in the form of grants, will be forthcoming in the months and years ahead.

As mentioned previously, the Foundation Board met in Iowa City in February. A portion of this meeting involved a positive discussion with representatives of the medical student body and G. L. Baker, M.D., and W. W. Morris, Ph.D., both assistant deans in The U. of I. College of Medicine. The students offered several suggestions as to how the Foundation loan program could be made more attractive. For example, they encouraged the Foundation to consider making loans available to freshman students, they also suggested the elimination or modification of several penalty provisions now contained in the loan agreements.

Further discussion and possible action will be taken on these suggestions from the students when the Board meets tomorrow. Any modifications in the loan program will be reported to the Society membership.

The Foundation has been made aware of the sharp reduction in funds which are available to Iowa medical students in the form of loans or scholarships. Federal funds to support U. of I. medical students were reduced last year to $115,000, from the previous year's $263,000, and it appears the lesser amount will be available again in the coming year. According to College calculations, the actual student need may be as much as $250,000 this year. While approximately 30 per cent of the '71-'72 needs may come from federal funding, the balance must come from sources such as the Scanlon Foundation. This represents a major challenge for the College of Medicine.

In other Foundation activity, the Board has acted to sponsor a scientific article in each issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY. This project will utilize the resources provided the Foundation by the Henry Albert Trust. The sponsored article will be so designated and the Foundation has authorized a $2,000 one-year grant for this scientific education project. This involvement is parallel in thrust to the Foundation sponsorship each year of the Baldridge-Beye Memorial Lecture. The 1971 Lecture will be at 10:45 a.m. Tuesday and will be presented by Robert L. Evans, M.D., York, Pennsylvania.

In addition, during 1970, the Foundation assisted in the sponsorship of the physician education seminars presented around the state on the emerging Foundation for Medical Care mechanism.

The Foundation Board authorized a grant of $1,000 in 1970 to the new Des Moines Science Center located in Ashworth-Greenwood Park. This grant is to sponsor a series of health science exhibits provided by the American Medical Association. This grant was made knowing the new Center would attract young persons and adults from throughout the State. A report on the first year of the Center's operation will be presented to the Board tomorrow. R. F. Birge, M.D., a past-president of the Society and a former Foundation Board member, is a member of the Science Center Board.

Other ongoing Foundation activities include (1) participation as a co-sponsor of the Hawkeye Science Fair, (2) participation as an exhibitor at the Iowa State Fair Hall of Health, (3) participation in support of the Health Planning Council of Iowa, and (4) participation, in part through the generosity of The Prouty Company of Des Moines, in the educational program of the Iowa Chapter of the Student American Medical Association.

I would direct your attention to the accompanying financial summary for a more specific review of the Foundation's fiscal status.

In closing, may I say we are pleased to continue the custom of introducing at this time two student representatives of the College of Medicine. Both of these young men are recipients of Scanlon Foundation loans. I would like to have you meet Mr. Ed Laird, who is a senior, and Mr. Mark Messingham, who is a junior.

* * *

Dr. Lister highlighted the preceding report and asked the Delegates to read it at their leisure. He then introduced Mr. Mark Messingham who spoke briefly and expressed appreciation on behalf of the Foundation loan recipients.

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY
BALANCE SHEET—DECEMBER 31, 1970

ASSETS:			
Central National Bank & Trust Company		$ 21,433.42	
Iowa State Bank & Trust Company		1,671.82	
Treasury Bills		90,000.00	
Notes Receivable from Medical Students		179,255.21	
Student Nurse Loan Fund		3,701.63	
100 Shares of American Scientific Corp.		60.00	
Total Assets			$296,122.08
LIABILITIES AND NET WORTH:			
Notes Payable to Physicians		$ 50,026.63	
Note Payable to IMS		3,000.00	
Net Worth:			
Balance 1-1-70	$181,545.28		
Add 1970 Gain	61,550.17	243,095.45	
Total Liabilities and Net Worth			$296,122.08

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY
INCOME AND EXPENSE STATEMENT—
DECEMBER 31, 1970

INCOME:			
Contributions and Memorials		$ 2,707.00	
Henry Albert Trust		11,500.00	
Interest on Loans		5,359.21	
Interest on Treasury Bills		5,632.10	
Funds for Rubella Eradication Program		435,194.79	
Special Gifts:			
Evan A. Peterson, M.D.	$203.02		
The Prouty Company	250.00	$ 453.02	
			$460,846.12
EXPENSES:			
Administrative Expense (Iowa State Bank & Trust)		$ 300.00	
Interest Paid to Physicians		1,556.92	
Purchase of Rubella Vaccine		379,765.00	
Educational Program re Foundation for Medical Care		7,000.00	
Hawkeye Science Fair		3,500.00	
Health Planning Council of Iowa		2,500.00	
Iowa Chapter, Student AMA		500.00	
Iowa Wrestling Fund		500.00	
Gould Memorial Education Fund		25.00	
Baldridge-Beye Lecture (IMS Annual Meeting)		211.99	
Iowa State Fair Exhibit		365.56	
Legal Services		1,869.90	
Office Supplies & Miscellaneous Administrative Expense		151.58	
Salary Allotment		1,000.00	
Tax Return		50.00	
			$399,295.95
Net Gain for 1970			$ 61,550.17

Supplemental Reports of Standing Committees

NOMINATING COMMITTEE

The Nominating Committee of the Iowa Medical Society met on Sunday, March 28, and agreed upon the following slate to be presented to the House of Delegates today.

President-Elect	K. E. Lister, M.D., Ottumwa
Vice President	R. H. Flocks, M.D., Iowa City J. E. Sinning, Jr., M.D., Davenport
Speaker of the House of Delegates	L. D. Caraway, M.D., Monticello
Vice Speaker of the House of Delegates	H. L. Skinner, M.D., Carroll
Trustee (3 year term)	Oscar Alden, M.D., Red Oak J. F. Bishop, M.D., Davenport
Delegate to AMA (2 year term)	E. M. Smith, M.D., Des Moines (Term expires December 31, 1971)
Alternate Delegate to AMA (2 year term)	C. E. Radcliffe, M.D., Iowa City (Term expires December 31, 1971)
Councilor, 2nd District (3 year term)	H. G. Marinos, M.D., Mason City
Councilor, 7th District (3 year term)	J. E. Tyrrell, M.D., Manchester
Councilor, 8th District (3 year term)	J. F. Collins, M.D., Davenport
Councilor, 9th District (3 year term)	K. A. Garber, M.D., Corydon
Councilor, 12th District (3 year term)	E. E. Linder, M.D., Ogden
Blue Shield Liaison Delegates to IMS (Two to be elected)	C. L. Kelly, Jr., M.D., Charles City R. C. Larimer, M.D., Sioux City S. P. Leinbach, M.D., Belmond C. W. Seibert, M.D., Waterloo

Additional nominations may be accepted from the floor after which the Speaker of the House of Delegates will declare nominations closed.

The Articles of Incorporation and By-Laws require that for candidates to be unopposed for nomination they must be unanimously approved by the Nominating Committee. Although it is recognized that it is desirable to have two candidates as a minimum for each of the proposed offices, the Nominating Committee is submitting but one candidate for some offices, since these were the only names formally proposed to the Nominating Committee and were unanimously approved by the Nominating Committee.

It will be noted that there are four candidates for the two offices of Blue Shield Liaison Delegate to the Iowa Medical Society. Under the Articles of Incorporation and By-Laws of the Iowa Medical Society, the Liaison Committee shall submit to the Nominating Committee the names of four or more candidates for the two positions of Liaison Delegate. Therefore, under the IMS By-Laws, it is mandatory that four or more names be submitted to the Nominating Committee for these offices. These names are merely received by the Nominating Committee and submitted as a part of its report to the House of Delegates.

As a matter of information, the Nominating Committee strongly feels that those reporting on district caucuses should be requested to submit a name as a candidate for a specific office only when it has been determined that the candidate is available and would consent to serve in that office, if elected.

Respectfully submitted,
J. E. TYRRELL, M.D., *Chairman*
TERRY F. DYNES, M.D.
J. T. MANGAN, M.D.
J. B. THIELEN, M.D.
J. L. GARRED, M.D.
W. R. HORNADAY, JR., M.D.
L. O. GOODMAN, M.D.
J. F. FOSS, M.D.
F. O. W. VOIGT, M.D.
J. D. KIMBALL, M.D.
J. H. SPEARING, M.D.
W. R. BLISS, M.D.

Nominations from the floor were requested, but none were presented. The Report of the Nominating Committee was adopted as presented.

NECROLOGY COMMITTEE

(The Speaker asked the members of the House of Delegates to rise while Dr. E. E. Gamet, Secretary of the Judicial Council, read the names of members of the IMS who had died during 1970. The list appears on page 397 of this issue of the JOURNAL.)

COMMITTEE ON LEGISLATION

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

Each year the number of legislative proposals, both state and national, which deal with health care increase dramatically. The time and expense of IMS officers, committees and staff devoted to the area of legislation continues to rise. We see no relief in the immediate future and, in fact, look for even more far reaching legislative proposals to be submitted both in Congress and the Iowa Legislature. We trust each Iowa physician is completely aware of the full impact that legislation does and can have on his individual practice of medicine. Without the voice of the Iowa Medical Society, even more restrictive measures which would further interfere between the doctor and his patient would become law. Only with the detailed attention given to legislation and the excellent cooperation of doctors at the local level are we able to enact laws in the public interest and to prevent passage of damaging legislation. Every physician should feel a responsibility to become politically and legislatively active in his local area. As has been the custom, the report will be provided in two sections.

FEDERAL LEGISLATION

The most overriding and controversial proposed legislation now on the scene is the continuing debate over national health insurance. Attention is primarily devoted to the various proposals which would utilize existing third party carriers (1. President Nixon's proposal; 2. the AMA's Medicredit) as contrasted to the Kennedy proposal which would completely restructure the health care system of this country with total financing by the federal government. Although some legislation to modify existing programs may very well be enacted in the present session of Congress, it is not anticipated that any national federal program will receive favorable consideration until after the 1972 presidential election.

The Medicredit program of the American Medical Association has more than 130 Congressional sponsors, which exceeds the total of any other national health care proposal. Medicredit is a program to give every person in America under the age of 65 equal access to high quality medical and health care, regardless of ability to pay. Several Iowa Congressmen have joined in co-sponsoring the Medicredit proposal.

As a part of the national debate, a great deal of emphasis is being given to the concept of Health Maintenance Organizations. HMO's, as they are commonly referred to, are based on four principles:

1. It is an organized system of health care which accepts the responsibility to provide or otherwise assure the delivery of
2. An agreed upon set of comprehensive health maintenance and treatment services for
3. A voluntarily enrolled group of persons in a geographic area and
4. Is reimbursed through a pre-negotiated and fixed periodic payment made by or on behalf of each person or family unit enrolled in the plan.

The Nixon administration is continuing to push for establishment of HMO's and has indicated plans to formulate such programs even in those states where the concept is now prohibited by state law. Iowa is one of these states. More comments on this item will be included in the portion of the report on state legislation.

A host of other national proposals dealing with Medicare, Medicaid, Peer Review Standards Organizations, malpractice and other items are being followed closely by the American Medical Association.

Representatives of the Iowa Medical Society in March made a visit to Washington, D. C. to meet with members of the Iowa Congressional delegation. This annual trip is one of the most worthwhile IMS projects conducted in the area of legislation. An excellent rapport has been established between the IMS and the Iowa Congressional delegation. IMS representatives are very impressed with the caliber of American Medical Association Washington representatives that serve as liaison, both with members of Congress and with regulatory agencies such as Health, Education and Welfare.

STATE LEGISLATION

Through periodic Legislative Bulletins and other means of communication, the IMS has attempted to keep physicians informed on matters of legislation which are of interest to the medical profession. The listing of bills followed by the Committee on Legislation is much too lengthy to review with the House of Delegates. We will be prepared at the Reference Committee hearings to comment on any item of legislation, but will limit this report to some of the more time-consuming issues.

Several bills have already been enacted into law including (1) a drug abuse bill which brings Iowa law in conformity with new federal statute and sets forth certain record-keeping requirements for physicians; (2) a bill to eliminate the requirement for "a complete physical examination" as a part of the premarital examination for venereal disease; (3) a bill to permit persons 18 or older to donate blood without parental permission; (4) a bill to enable qualified physicians to delegate health care tasks to assistants. This proposal was quite acceptable to the medical profession and gives responsibility for administering the act to the Board of Medical Examiners.

At the end of the report we will list some of the more important bills and their status in the General Assembly.

Comprehensive Health Care (SF 239—HF 525): This bill would permit the corporate practice of medicine by other than physicians in the State of Iowa. It gives almost unlimited power to the Iowa Commissioner of Insurance and in its present form is actively opposed by the Iowa Medical Society. As stated earlier in the report, Iowa is now one of the several states which legally does not permit the operation of a Kaiser-Permanente type program or other similar closed panel-capitation system. There is increasing interest, both at the federal and local level, by various groups in the concept of Health Maintenance Organizations. The Iowa Medical Society has devoted a great deal of time and thought to how an HMO might evolve in this state. Health insurers, legislators, hospitals, labor unions, employers and others have expressed keen interest in Health Maintenance Organizations. The Committee strongly believes that the HMO concept should be evolutionary in nature and not revolutionary. Whether this is an acceptable answer to the problem of distributing health care and services to Iowa citizens is subject to debate. How this concept, which has to some degree worked in large metropolitan areas, would serve the needs of rural Iowa is not known. The Iowa Medical Society has been a forerunner in considering changes in the delivery and financing of health care. Our involvement with health insurance companies, Blue Shield, University of Iowa College of Medicine, state governmental agencies and others attests to the progressive stance of the IMS.

This House of Delegates is considering how a Foundation for Medical Care could be formed in Iowa. A Foundation and the physicians' assistants legislation supported by the IMS are just two examples of the type of programs that are receiving constant attention by the Medical Society. If the IMS is to continue its leadership role, some broad-based, in-depth study of the operation of a "Health Maintenance Organization" in the State of Iowa should be undertaken. The Committee on Legislation recommends that the officers of the IMS be authorized to join with other interested individuals and organizations such as health insurance underwriters, Blue Cross-Blue Shield, those representing health facilities and others in a detailed analysis of HMO's and the type of experimental program which might be implemented in Iowa to determine the extent to which HMO's may be of value in providing medical care and health care to Iowa citizens.

Chiropractic: Again in this session of the Legislature, several bills have been introduced relative to chiropractic. The legislative policy of the Iowa Medical Society with regard to chiropractic has been to "live and let live." We have vigorously opposed legislation sought by chiropractors to change the status quo, but have not sought legislation which would harass or further restrict the practice of chiropractic. The Committee believes this is a sound policy, particularly in view of all legislative and political considerations. We have been in an excellent position to respond to chiropractic legislation and have received support from the Iowa General Assembly. The Committee on Legislation believes that the IMS should continue to expose

the unscientific cult of chiropractic by educational means and public exposure of the limitations and inadequate training of chiropractors. Iowa presently has one of the most restrictive chiropractic licensing laws in the United States. We feel it must remain restrictive. It is recognized that physicians feel strongly in their opposition to chiropractic and the Committee agrees with this position. The Committee recommends that the present legislative position of the Iowa Medical Society regarding chiropractic remain unchanged, but that efforts to educate the public as to the cult of chiropractic be continued and expanded.

Professional Liability: Representatives of the Committee on Legislation in February met with prominent defense attorneys to consider 8 proposed pieces of professional liability legislation recommended by the American Medical Association for study at the state level. It was concluded that this legislation would be of little help in reducing malpractice premiums and few of the bills would stand much chance of passage by the Iowa General Assembly. The main problem as viewed by the Committee relates to (1) the increasing incidence of professional liability claims, and (2) the amount of awards presently being given in malpractice cases. (Educational and preventive programs will tend to diminish the incidence of claims.) With respect to the size of awards, two specific areas that might be studied in an attempt to find a solution are (1) contingent fees, and (2) the concept of awards for pain and suffering. The Committee on Legislation recommended to the Executive Council that the Iowa Medical Society consider suitable educational and preventive programs and also seek support from other organizations such as defense attorneys, insurance underwriters, and other appropriate organizations to establish measures for reducing the exorbitant malpractice jury awards. The Executive Council concurred with these recommendations.

As indicated, it would be impossible to list all of the bills that receive daily attention by the Committee on Legislation, legal counsel and IMS staff. Those listed on the attached are merely some of the major items and their present status in the Iowa General Assembly.

Respectfully submitted,
J. H. KELLEY, M.D., *Chairman*
J. L. BEATTIE, M.D.
C. L. BEYE, M.D.
R. M. CHAPMAN, M.D.
G. R. CLARK, M.D.
W. R. HORNADAY, JR., M.D.
C. N. HYATT, M.D.
J. E. KELSEY, M.D.
ERLING LARSON, JR., M.D.
R. D. LIECHTY, M.D.
W. C. MCCORMACK, M.D.
W. J. MORRISSEY, M.D.
L. J. O'BRIEN, M.D.
V. L. SCHLASER, M.D.
J. H. SUNDERBRUCH, M.D.
G. I. TICE, M.D.

Dr. Kelley summarized the preceding report and introduced Dr. Erling Larson, Chairman of the Iowa Medical Political Action Committee. Dr. Larson commented as follows:

DR. ERLING LARSON

I want to thank the officers and the delegates of the Iowa Medical Society for allowing me a few minutes to discuss the problems and the current status of IMPAC. You've heard a report from Dr. Kelley; and as you've noticed, the number of health issues and bills arising before the Iowa Legislature continues to increase with each session. As a result, the attention of IMPAC has become increasingly directed toward the Iowa Legislature.

The primary attention, however, of IMPAC is and must remain on a national level. There the greatest concern, of course, is the so-called national health insurance. Your Medical Society and IMPAC officers recently attended a conference in Washington, and when we concluded that visit, as Dr. Kelley mentioned, we met with each of the Senators and Representatives and/or their Administrative Assistants; and they confirmed what all of you have been aware of for a long time. There is going to be national health insurance. The only question is what kind.

The best informed guess on both sides of the aisle is that any definitive legislation will be delayed until after the 1972 elections, and, therefore, the makeup of the 93rd Congress should be of major interest to every practicing physician in the United States. 93 closely resembles the Chinese symbol for crisis, and the 93rd Congress certainly could be one of crisis for all of organized medicine.

There are numerous legislative proposals for national health insurance. These vary from the Medicredit bill of the AMA, which now has 132 sponsors, to the Administration bill and the Kennedy bill, which also continues to increase with sponsors, and they now have 108. If national health insurance were to be enacted at this time it would undoubtedly be some sort of a compromise between the Medicredit bill and the Administration bill. However, if there were any significant change in the makeup of the 93rd Congress, then legislation could be enacted that would change the practice of medicine beyond anything that you could possibly recognize. The year 1972 is a major election year, and it will put tremendous demands on IMPAC.

Although IMPAC and AMPAC do not participate in the Presidential elections, 1972 will involve us deeply in a major Senatorial race. There are six House races in Iowa this year, which are a whole new ball game because of redistricting. There will be major contests for Governor and Lieutenant Governor and because of the increasing health field legislation on the state level, we will have to become increasingly more involved in major state Senate and House races.

IMPAC is not a propaganda organization. We respectfully request the intelligent defense of each of you to offset the casual attacks of the uninformed. We will, as we have done in the past, do our best to keep the physicians of Iowa informed as to what the issues are and why we need your money in IMPAC.

IMPAC stands as the severed arm of the Iowa Medical Society, and we will do our utmost to promote the programs of the Iowa Medical Society which are aimed at providing maximum service to the physicians of Iowa and maximum benefits to their patients. I want to thank the 1965 Iowa House of Delegates, who actively approved joint billing of IMPAC dues with Iowa Medical Society dues. This mechanism—and it

clearly delineates IMPAC dues as a voluntary contribution—has facilitated the collection of dues, and it has greatly enhanced IMPAC membership.

All of you assembled here, the officers and delegates of the Iowa Medical Society, are the leaders of Iowa medicine; and we need your continued support and membership if IMPAC is going to be able to successfully meet its challenges and carry out your programs. There have been a number of significant contributions to the growth of IMPAC in the year of 1971. And, incidentally, IMPAC this year at this time of the year has more members than we've ever had at any similar time of the year at any time in the past. If the growth continues, 1971, even though it is not an election year, will be a peak membership for IMPAC.

But there have been several things this year which have contributed to this growth, and I would like to call attention to the most outstanding ones. First of all is Johnson County. Johnson County is absolutely magnificent this year with a 500 per cent increase in membership over their previous peak year—500 per cent increase.

In addition, the following counties have attained an overall membership rate of 90 per cent or better. These include Boone, Davis, and Monona counties. And the following counties have already come through with 100 per cent membership: Clark, Delaware, Monroe and Wayne. To each of these record-breaking counties the IMPAC board says thank you. And I hope soon all of the other counties will join this select group of understanding physicians.

I now enjoy the privilege of being state Chairman of IMPAC only because my predecessor did such an outstanding job. From 1965 to 1970 Dr. Otis Wolfe was the Chairman of the Iowa Medical Political Committee. In recognition of his record in Iowa and as a concrete manifestation of the great esteem in which he is held nationally, Dr. Wolfe was recently appointed to the national AMPAC Board of Directors. He has served the Iowa Medical Society on committee after committee and board after board up to the Presidency of the Iowa Medical Society, and he didn't stop then. He's continued to serve, and God bless him, he's agreed to continue serving on the Board of Directors of the Iowa Medical Political Action Committee. It is with great pleasure I present to you Iowa's newest contribution to the national political scene, Dr. Otis Wolfe of Marshalltown.

DR. OTIS WOLFE

Thank you, Erling.

Mr. Speaker, Officers, members of the House of Delegates, ladies and gentlemen, you will be pleased to know that between Dr. Kelley and Dr. Larson that half of my speech has already been given. I would like to supplement what Erling said about the sponsors for AMA Medicredit, and that is that nearly one-third of these sponsors are Democrats and the remainder are Republicans. I think it's significant that most of us here are involved.

I think most of us here are involved with private practice and believe in it as a major system of practice. And I think all of you know that the Kennedy bill would revolutionize this system beyond our recognition. It would certainly eliminate fee for service. No one—and I repeat, no one—knows what this would do to the practice of medicine. No one knows how well it would be received by patients. It would certainly eliminate a number of physicians, and I'm sure that some physicians could not practice under this system.

As you know, Senator Kennedy's bill is really the bill outlined and developed by Walter Reuther and his committee of 100. Certainly the AFL-CIO will make this a major issue in the campaign of November, 1972.

Now, I want to review with you something that frightens me very much. Every other year we bring to you a poll of the Congress, and in the past there have been three polls. I want to emphasize that these are polls conducted by these organizations. In the past these three polls have been ADA (Americans for Democratic Action), a liberal group; ACA (Americans for Constitutional Action), a conservative group; COPE, "the political arm of AFL-CIO"; and more recently there have been two more—the Committee on National Security, and the Ripon Society, the liberal wing of the Republican party.

Now, these organizations rate the Congress according to the way they vote on issues affecting them. COPE's poll, for instance, rates the Congress on whether they have been right or wrong on the issues affecting labor. Now, in 1970 and this is the latest poll we have—this comes out every election year—by their own figures, in the House there were 134 Representatives who supported COPE more than 90 per cent of the time. 48 supported COPE 100 per cent of the time. In the Senate 29 Senators in a body of 100 Senators supported COPE over 90 per cent of the time, and 7 of these supported COPE 100 per cent of the time. Among our own state Representatives and Senators, Congressman Smith supported COPE 94 per cent of the time, Congressman Culver—97 per cent of the time, Senator Hughes—100 per cent of the time. Now, I think a significant question is do you know anybody or any organization that is right 100 per cent of the time? I think you ought to think about this. This is not an indictment or criticism of organized labor by any means. Organized labor has developed the COPE concept to perfection. They've won this by hard work, and they deserve it.

There's nothing wrong with seeking power. It's man's nature to seek power. Everyone in this room in some way seeks power of a sort. All through history man has sought power, and this has been the development of the empires, dynasties, dictatorships, and even some religious organizations; but whenever man has had power he has abused it. Corruption seems to be synonymous with power in man's hand. I would recall to your memory a statement made by George Santayana that those who ignore the lessons of history are doomed to repeat them. William Buckley I think referred to this when he said that he would rather be ruled by the first 2,000 names in the Boston Telepnone Directory than by the entire faculty of Harvard University.

Now, there are two alternatives left open to us in the face of this situation, if we regard it as a situation. One is to lie down and play dead. There's nothing wrong, as I say, with seeking power. What is wrong is our letting somebody have this power. We want to get this for ourselves, so to speak.

You can be critical of my viewpoint, because this is exactly what we're seeking; and if they let us have

this power they're fools. I remind myself a little bit of the mother who is trying to console her spinster daughter who wasn't doing very well with the opposite sex. She told her, "Dear, for every girl there's somewhere in the world the right boy, and for every boy there's a right girl. Do you see anything wrong with that system?" She said, "No, I don't see anything wrong with the system. I just want to get in on it."

It hasn't been the nature of physicians to be defeatists in the face of adversity, and I think the alternative to playing dead is to take appropriate action. In terms of mankind or anthropology I don't think it makes a great deal of difference what happens to medicine 25 or 100 years from now. I don't think it will affect man very much, but I think it will affect man that there was a time in history when influential, intelligent, motivated physicians had an opportunity to curb something and didn't do it.

This is the purpose of IMPAC and AMPAC. I think it's appropriate, even though most of you know this, that I review for you again the function of IMPAC. IMPAC has no legislative function, absolutely none. We have no policy-making function. The policy-making organization of the Medical Society is this House of Delegates and in between sessions, the Executive Council. They make their wishes known in their pronouncement to the Legislative Committee, and the Legislative Committee calls on the legislators at the state level and the Congressmen and Senators at the national level.

I like to think of our function as that of a catalyst, but I believe it's more than that. I think it's a reactor. Without your effort on behalf of IMPAC to make this communication possible between the Legislative Committee and the Congressmen and the legislators, there wouldn't be any legislative function because we wouldn't have anybody to talk to.

You will notice on this chart that was magnificently presented on the dollar costs of your Society that one of the major programs, in fact, the major program was legislative. I don't think there's anyone in this room that has to be convinced that legislation is one of our most important functions, and if it were not for IMPAC we might as well fold up our tent and go home, because without IMPAC the Legislative Committee would not be able to communicate with these people. Whenever we used to go to them before we had the IMPAC organization, and we'd say, "Well, medicine would like you to consider this opinion," their first reaction almost invariably was, "Where the hell were these guys during my campaign? Sure, there were individual doctors that contributed, that supported; but individuals don't count anymore in politics. It's groups that are important." Now, I would also like to stress that I believe IMPAC serves the interest of the salaried physician as much as it does the private practitioner. I think there's another point that's important: joining IMPAC is not enough anymore just as joining your church is not enough to get you on the right road to heaven. There's a little work necessary after you join the church and put your nickels in the collection box.

The next step is political activity, candidate support committees, attending precinct caucuses and getting involved with your own political party. And remember this, if you have a district that you think is rather sterile and you can't accomplish anything, don't forget that the vote of the congressmen in New York, California, in Illinois is just as important as your own Congressmen's vote. If you still can't find anything to attach yourself to, don't forget the important state races.

Now, I'm going to speak as a fellow physician. Your officers are going to face some of the toughest decisions that medicine has ever faced in the next few years, and there's going to be an inclination for all of us to blame them for some of the reverses that take place. I would caution you, request that whenever these things come up—and they will; you're going to have some reverses in economics and even in principle—when these things come up be sure you know the ground before you take off on what the officers have and haven't done. This also applies to our staff. Whenever I attend a state or national meeting I'm literally amazed at the dedication of our staff.

Recently I attended a meeting in Washington of the field staff, the AMA. I couldn't get over this dedication of these field men to medicine. I know it's the kind of devotion that your secretary and your nurse have, but I think it's deeper than that. I think they really see the eminence of medicine as a profession and the principles that most physicians follow and maintain in this profession.

I hear constant accolades of our own staff. Recently I had occasion to inquire as to why this state didn't have this program or why some other state hadn't had the vision to foresee that, and I was told that it was because these states don't have a Don Taylor or a Don Neumann or a Tina Preftakes like your state. I hear this constant accolade at the national level to our own staff people.

I want to mention something to you that leaves a rather sour taste in my mouth, but I think it's important in this discussion. Not long ago a disgruntled physician wrote a letter to one of the officers complaining about a decision that had been made on his behalf by Blue Shield. I would say that perhaps he had every right to be disgruntled, but he devoted one whole paragraph—and perhaps this was a capricious act on his part and he did not realize the significance of it—but in the letter he said he questioned the loyalty of our staff of the Iowa Medical Society. Now, I don't know whether you can feel what this does to staff people who have devoted their lives to our profession. I think that it probably wouldn't have hit them too hard, although they would have been equally wronged, if their intelligence, if their foresight, if their judgment had been challenged; but their loyalty. That's pretty hard to take.

Mr. Speaker, at the risk of abusing my privilege of addressing this House of Delegates, I think I know the House well enough to believe that they would like in their own appropriate manner to use this occasion to show their confidence in the dedication and loyalty of our very wonderful medical staff. Thank you.

SUBCOMMITTEE ON MEDICAL REVIEW

(Referred to the Reference Committee on Insurance and Medical Service.)

The Subcommittee held its last meeting of the year on April 21, 1971. This has been a most active year for the Subcommittee with many problems discussed and directions for the future established.

As mandated by the 1970 House of Delegates, the Subcommittee has (1) continued to study the matter of payment for surgery and surgical assistants under Medicare and (2) begun to formulate and develop "standards of medical care." After considering further the problem of payment for surgery and surgical assistants under Medicare, the Subcommittee recommended that the Executive Council sustain the original recommendation presented to the House of Delegates in 1970. Under this recommended approach claims submitted by physicians show which of the following components of a surgical illness are represented by the charge listed on the claim form: (1) patient workup; (2) normal pre-operative care; (3) surgery; (4) surgical assistant; (5) normal post-operative care. The Executive Council agreed the recommendation should be submitted once again to the 1971 House of Delegates for its consideration and action. The report is attached to this Supplemental Report.

As a part of its deliberations, the Subcommittee has endorsed the concept and need for a "Foundation for Medical Care" in Iowa which is to be considered by this House of Delegates. The Subcommittee believes this to be a progressive step in the continuing development of mechanisms whereby physicians can play a proper role in assuring Iowa citizens of high quality medical care.

The Subcommittee has received the "Standards" from Hennepin County, Minnesota and will be evaluating that data as it develops "standards" for Iowa physicians.

During the next few months, the Subcommittee will be devoting its efforts to the refinement of "Standards for Medical Care" and the development of "medical care norms." We will be prepared at the earliest possible time to submit recommendations to the proper policy-making body.

Respectfully submitted,
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D. D. ALDRICH, M.D.
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Report on Payment for Surgery and Surgical Assistants Under Medicare

The 1969 House of Delegates in considering the State Claims Review Committee report endorsed the appointment of a special Subcommittee to meet with the Medicare Carrier and representatives of HEW to evaluate the administrative problems involved in payment of surgical and surgical assistants' fees. The House was aware of the problems inherent in the payment of surgical and surgical assistants' fees and recognized that customs vary in different parts of the state which variation further complicates the handling of these claims.

Since the beginning of Medicare the Iowa Medical Society and the Medicare Carrier have each received many inquiries from physicians both in family practice and surgical specialities as to exactly how payment for surgery and surgical assistants is determined under Medicare. The Carrier has always been guided by the official policy of the Iowa Medical Society.

During its deliberations the Subcommittee conducted a most exhaustive study of the historical background of Medical Society policy on this subject. This included action of this House, the Executive Council, the Judicial Council and the AMA House of Delegates and Judicial Council.

Basic to the Committee thinking has been agreement that treatment for a surgical illness includes the following five components:

(1) The patient workup.
(2) Normal pre-operative care.
(3) Surgery.
(4) Surgical Assistant.
(5) Normal post-operative care.

The difficult administrative problem of the Carrier is to determine which of these services were rendered by a physician who has submitted a claim for payment. Historically, in many parts of Iowa claims for surgery have been submitted on a "package charge" basis, which has included the charge for all five components, even though more than one physician may have been involved in the care of the patient. Because of this factor the surgical charge information used by the Carrier has been maintained on this "package charge" basis. Charge profiles have not been developed on each of the five separate components since most claims received list one charge representing all five components. Even when a physician has not rendered all five services, many physicians have been reluctant to list a charge less than their normal charge for all five components because of the effect this might have on their computer profile. All of these factors have too many times resulted in an incorrect or inadequate payment being rendered to one of the physicians involved in the treatment of a surgical illness.

Based on its study the Committee offers the following observations:

1. The Medicare Claim Form (SSA-1490) includes the following certification statement:

"(A physician's signature certifies that physician services were personally rendered by him or under his personal direction.)"

Rendering of a statement "for professional services" to a patient even though not assigned and not on a Medicare Claim Form (SSA-1490) is interpreted by HEW as carrying the same degree of certification by the physician as signing the Medicare Claim Form.

The Federal False Claims Act provides for civil recovery of double damages for claims (this includes Medicare claims) filed falsely. In addition, criminal fraud provisions apply when intent to defraud is established.

To conform to the above HEW takes the position that Medicare billings must clearly identify the exact

scope of services for which billing is being made. *If the claim includes a billing for the services of any other physician, specific identification of that physician and the charge for his service must be included on the claim form.*

2. Charges submitted for surgery usually include all five components and the Carrier's charge information is maintained on this basis. Where a surgeon performs an operation but does not render all five components the Carrier should be able to determine a reasonable charge for only those components of care actually rendered. If another physician has rendered one or more of the components, the Carrier should be in a position to determine the reasonable charge for only those components. *However, the total reasonable charge for the services of both physicians cannot exceed the reasonable charge for the five components had one physician billed for the full range of services.*

3. The determination of a reasonable charge under Medicare needs refined. One of the basic principles of Medicare is for each physician to determine his own charge for a medical and surgical service. For the Carrier to accurately determine a reasonable charge, claims submitted must describe and define the exact services rendered in order to permit grouping of only identical services for purposes of determining a reasonable charge.

4. The Carrier should establish customary charge profiles for the components of a surgical service in order for it to build appropriate prevailing charges for the payment of claims. To accomplish this goal, claims must clearly identify the exact services personally rendered by the physician submitting the claim.

Two points seem to evolve from the Committee's study:

1. Medicare is based on the physician placing a value on his service and the program paying for that service within the charge guidelines established through federal law and regulations. In order to fulfill this commitment the Carrier must be able to identify exactly what surgical service components the physician rendered:

(1) Was it all five components?

(2) Was it assistant surgery only?

(3) Was it assisting plus workup and pre and post operative care?

(4) Was it only the surgical operation?

Each possible combination must be treated as a discrete service and valued as such in the Carrier's record if the physician and patient are both to be treated with equity.

2. The total financial obligation of the program cannot be increased solely because of any revision or change that might occur in the Medicare billing and/or payment process.

The Committee recommends that in the future all claims submitted by physicians should indicate which of the five components of a surgical illness are represented by the charge listed on the claim form. Such itemization will result in a more equitable administration of third party programs, particularly Blue Shield, Medicare and Medicaid.

To implement this recommendation the Committee feels that an educational program should be undertaken by the Iowa Medical Society and Blue Shield. Such an educational program should involve all physicians but perhaps with special emphasis on physicians practicing family medicine or a surgical specialty.

The Committee believes that nothing in this recommendation will require a change in the long established policy of the Iowa Medical Society with regard to payment for surgery and surgical assistants. *However, if the recommended program is to succeed, great attention will need to be devoted to the completion of claims by physicians.*

The Committee recognizes that close liaison will be required between the Iowa Medical Society and the Carrier to assure physicians that the Carrier has methods to properly identify and code claims for surgery. Only with this assurance could the program be favorably received.

Supplemental Reports of Special Committees

The Speaker next called for the presentation of supplemental reports from special committees.

COMMITTEE ON BLOOD BANKING

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

In its meeting of January 22, 1971 and again in its report appearing in the HOUSE OF DELEGATES HANDBOOK the Committee on Blood Banking has recognized the need for a thorough study of the blood services complex in Iowa. On March 11, the Committee convened at the Iowa Medical Society Headquarters primarily to address itself to this problem.

The blood services "system" serving Iowa draws approximately 84,000 units (pints) of blood annually:

Community Blood Banks and Hospitals	37,000
American Red Cross	37,000
Smaller Hospitals	10,000

The system is not coordinated effectively and as a result the following significant deficits must be noted:

1. The University of Iowa Hospitals in 1970 were forced to buy 6,000 units of whole blood and 4,000 units of cryoprecipitate from outside of the state from commercial sources in Chicago (an expenditure of 180 to 200 thousand dollars).

2. Iowa Blood donors provide 37,000 units per year to five (5) Red Cross Regional Centers (Galesburg, Illinois; Peoria, Illinois; St. Paul, Minnesota; Omaha, Nebraska; and Waterloo, Iowa). This means that approximately 30,000 units of blood are exported to Red Cross Centers outside of Iowa and returned in smaller increments as requested by hospitals in the Red Cross areas. Three of the Centers (Galesburg, Peoria, St. Paul) are rather remotely located in relation to the areas served in Iowa. We suspect this causes critical problems for emergency blood supplies and we know of several occasions when Iowa blood banks have been asked to provide emergency supplies.

3. There is a large outdating of blood in the Regional Red Cross Centers drawing blood from Iowans. This is substantially due to the logistical problems of blood shipment in such large areas of coverage.

4. The cryoprecipitates urgently needed for hemophiliacs in Iowa must be prepared from fresh blood drawn into special blood component plastic containers.

The blood drawn by Red Cross should be a significant source for this important therapeutic agent. Presently Red Cross sources are almost negligible.

5. Private Community blood banks must also coordinate their efforts to judiciously enlarge their geographic areas of coverage to provide whole blood and components for the University of Iowa.

For the above reasons and many others the Committee on Blood Banking urges the adoption of the following recommendation by the Iowa Medical Society House of Delegates in the April 1971 Annual Meeting:

> That the Iowa Medical Society request the Iowa Association of Blood Banks to develop a proposal for the establishment of a statewide group procurement and blood assurance program designed to organize the blood resources within the State of Iowa, for the citizens of Iowa; further, that any proposal drafted by the IABB be submitted to the Iowa Medical Society for endorsement.

Respectfully submitted,
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FRED DICK, JR., M.D.
K. B. GRANT, M.D.
D. O. HOLMAN, M.D.
C. A. JOHNSON, M.D.
G. T. JOYCE, M.D.
WALLACE RINDSKOPF, M.D.

COMMITTEE ON QUACKERY

(Referred to the Reference Committee on Legislation and Miscellaneous Business.)

The IMS Executive Council in October of 1969 approved recommendations developed by the IMS Quackery Committee which have provided guidance to the Committee on Legislation in a legislative program dealing with chiropractic. The policy adopted in 1969 has served as a guideline for the Society's policy re chiropractic in subsequent sessions of the General Assembly. Present policy is as follows:

1. Maintain the status quo insofar as existing Iowa law is concerned.
   a. The Legislative Committee should determine the best method of assuring that Iowa's law remains unchanged; further, the Committee should establish appropriate contacts with all parties who support this position.
   b. Consideration should also be given to stimulating a legislative study of chiropractic as a health care provider, if this approach seems necessary in maintaining the status quo.
2. Any attempt to introduce legislation designed to eliminate chiropractic would not be practical at the present time for various reasons—e.g., public attitude, "political" positions of members of the legislature, etc.—even though the abolishment of the cult of chiropractic is the most desirable objective, and is consistent with medicine's position that chiropractic is a health hazard.
3. Acceptance of any compromise legislation is the least desirable alternative.

The Chairman of the Committee on Quackery appeared before the Iowa Medical Society Committee on Legislation on December 9, 1970 and suggested that the Committee support a bill in the General Assembly which would provide that all applicants for licensing in the healing arts be graduates of schools or colleges accredited by an accrediting agency recognized and approved by the National Commission on Accreditation and the Office of Education, Department of Health, Education and Welfare. Agencies that approve chiropractic schools would not qualify under this bill. (See copy of bill at end of report.)

The Committee on Legislation at that time felt that active encouragement and support of this legislation would not be possible because of the present policy of the Iowa Medical Society. The only way it could support such a bill would be as a response to efforts by chiropractors to expand their scope of practice.

The Committee on Quackery is of the opinion that the present policy of the Iowa Medical Society regarding chiropractic should be changed and a more aggressive policy adopted. The reasons the Committee on Quackery feels that the policy on chiropractic legislation should be changed are as follows:

1. Chiropractic is a cult based on unscientific principles and constitutes a health hazard to the citizens of Iowa. The Iowa Medical Society should support measures to eliminate health hazards of all kinds, including chiropractic.

2. National interest in chiropractic is growing and many public and lay organizations have publicly opposed chiropractic. Some of these are the A.F.L.-C.I.O., the Council of Senior Citizens, the Consumers Federation of America, the Department of Health, Education and Welfare, the National Association of Letter Carriers of America, the Alabama Council on Comprehensive Health Planning, the Health Insurance Benefits Advisory Council and many professional organizations. The Committee on Quackery feels that the IMS should be on record with a policy equally in opposition to chiropractic.

3. There are indications that chiropractic interests will increase their activities in the legislature in the future. Time spent fighting pro-chiropractic measures would be better spent in promoting legislation which would control, limit and eventually eliminate chiropractic.

4. Chiropractic associations are divided at present in their goals and definition of scope of practice. These organizations are trying to combine and thereby exert greater force on legislative bodies. The IMS should be more active now while division exists in the chiropractic ranks.

5. With more third party participation in health care by private and governmental agencies, the inclusion or exclusion of chiropractic in any given program should not be a bargaining point.

The Committee on Quackery understands that political and legislative realities make favorable consideration of any anti-chiropractic proposal very difficult. However, there are many good reasons for supporting such a bill as previously mentioned.

1. It calls attention to the very low educational standards which are present now for chiropractors. Many people do not realize this.

2. There is no threat to the livelihood of present practicing chiropractors.

3. It is a positive bill and one that elevates the standards of chiropractors.

4. For the above reasons the legislator voting for

the bill can easily defend his vote to anyone. The legislator who votes against it would have a difficult time explaining why a chiropractor who treats the wide gamut of human illnesses should not at least be a graduate from an accredited college.

5. Many states across the country will be debating this bill in the near future. The more states involved in this debate, the greater dilution of chiropractic opposition will be found.

On the 24th of February 1971 the Chairman of the Committee on Quackery made the following recommendations to the Executive Council:

1. Support legislation to provide that all applicants for licensing in the healing arts be graduates of a school or college accredited by an accrediting agency recognized and approved by the National Commission on Accreditation and the Office of Education, Department of Health, Education and Welfare.

2. Support other appropriate legislative measures that would seek to limit and restrict the practice of chiropractic.

3. Undertake an informal program to both the profession and the public as to unscientific basis of chiropractic and its hazard to rational health care.

4. Oppose the inclusion of payment for chiropractic services in any program financed by public funds.

The Executive Council took no action on these recommendations by the Committee on Quackery. They voted to send these recommendations to the House of Delegates for final action at that time.

Respectfully submitted.
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C. H. DENSER, JR., M.D.
W. D. EDGERTON, M.D.
V. H. PLAGER, M.D.
D. J. SOLL, M.D.
R. G. VERNON, M.D.

(H.F. 383)

Section 1. Section one hundred forty-seven point thirty-two (147.32), Code 1971, is amended as follows:

147.32 ACCREDITED COLLEGES. The state department of health shall prepare and keep up to date a list of accredited colleges in which are taught the professions which are regulated by this title. The examining board for each profession shall make recommendations relative thereto and shall approve the list for the profession for which it gives license examinations. No such school shall be accredited by the department unless it has been so recommended and approved by the proper examining board together with the commissioner of health. *A school in which the professions of medicine and surgery, podiatry, osteopathy, osteopathic medicine and surgery, chiropractic, physical therapy, dentistry, optometry, and pharmacy are taught shall not be accredited by the department unless it has been accredited by an accrediting agency recognized and approved by the national commission on accrediting and the office of education, United States department of health, education and welfare.* Such recommendations and approval shall be made at some regular session of the board held for the purpose of giving an examination.

Section 2. The provisions of this Act shall not apply to any person licensed by this state on the effective date of this Act to practice medicine and surgery, podiatry, osteopathy, osteopathic medicine and surgery, chiropractic, physical therapy, dentistry, optometry, and pharmacy.

EXPLANATION

This bill requires that in order to be licensed as a practitioner of the healing arts a person must have graduated from a school or college accredited by an accrediting agency recognized and approved by the National Commission on Accrediting and the Office of Education, Department of Health, Education and Welfare.

RESOLUTIONS

POLK COUNTY MEDICAL SOCIETY
NO. 1. REAPPORTIONMENT

(Referred to Reference Committee on Articles of Incorporation and By-Laws.)

WHEREAS, The representation within the House of Delegates of the Iowa Medical Society continues to be on a county basis with unequal representation and,

WHEREAS, Previous attempts to change the Bylaws of the Iowa Medical Society to establish a one to one representation on a state-wide basis have not been approved; therefore be it

Resolved, That the Iowa Medical Society amend its Bylaws to provide for delegates to be selected on a basis of Councilor Districts with one delegate from each district and an additional delegate from each district for each 25 members (or major fraction) more than an original 25.

MARION COUNTY MEDICAL SOCIETY
NO. 2. MALPRACTICE SUIT LIMITATION

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, In malpractice claims that have been initiated there is frequently a delay and postponement for many years before settlement, which long delay is of considerable anguish to the physician; therefore be it

Resolved, That when a malpractice suit is instigated against a physician, the case must be tried or settled within two years; and be it further

Resolved, That the Iowa Medical Society shall use its efforts to have such a bill enacted by the Iowa Legislature.

MARION COUNTY MEDICAL SOCIETY
NO. 3. VEXATIOUS LITIGATION

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, Our high malpractice insurance rates and our many cases of civil litigation are caused by archaic state laws, so constituted that unscrupulous plaintiffs have distinct advantages over an innocent defendant. For if a plaintiff with his pseudo accusations does not win his case in court, he is not out of practically anything except meager court costs, for his attorney has usually been engaged on a contingent fee basis. But the innocent defendant against whom the plaintiff brought his action has to hire an attorney to defend and clear himself of the false charges, and still pay his own attorney's fee; and

WHEREAS, Unscrupulous plaintiffs would not likely start litigation if we had a state law which compelled such plaintiffs to pay not only court costs but

also a reasonable fee to the winning party's attorney, if he lost his case in court; and

WHEREAS, With such a proposed state law on our statute books (that the losing party in civil litigation must pay a reasonable fee to the winning party's attorney) a plaintiff with a justifiable and successful case would not only be compensated for his injuries or for the damage he sustained, but he could also expect to be paid for his attorney's expense; and

WHEREAS, Included in this proposed change of our state law there is also a provision that the poor man can sue. And it must include a reasonable schedule of fees that the losing party is accountable for to the winning party's attorney; and

WHEREAS, No plaintiff may start litigation unless he can furnish the clerk of court an affidavit and additional proof if deemed necessary, that he can pay the court costs and the defendant's attorney fee, if said plaintiff lost his case in court; and

WHEREAS, The vexatious nature of malpractice cases is substantiated by the AMA Journal of 10-12-57, page 700, which states, "But the blunt truth is that the majority of all professional liability claims and suits filed are without merit; more than half of them involve physicians who are above the average of their respective groups in skill, experience and professional standing"; and

WHEREAS, With this law, it has been estimated we would eliminate 50 per cent of our civil litigations, including malpractice suits, and as a result our liability insurance rate should be much cheaper; and

WHEREAS, This proposed state law is not experimental, as it is patterned after a similar law which has been on the statute books of most civil mid-European countries for years, and where it has held vexatious litigation to a minimum; therefore be it

Resolved, That the Iowa Medical Society shall write a bill to present to the Iowa Legislature for enactment and actively support it, and seek the active support of other state organizations which stand to benefit from this proposed legislation: 1. That the losing party in civil litigation shall pay all court costs including a reasonable fee to the winning party's attorney. 2. That the poor man shall be able to sue, if he has a justifiable case, as determined in medical cases, by a county committee composed of the county attorney, the president of the county bar association, the president and secretary of the county medical society and the clerk of court. In non-medical cases the committee shall be represented by the Board of Supervisors, the county attorney and the clerk of court. If either committee in its investigation finds that the poor man has a justifiable case, it will furnish him an attorney, and the necessary means so that he can comply with the law, in the very few instances that he lost his case in court. 3. That there shall be established in connection with this proposed law a schedule of justifiable fees that the losing party has to pay to the winning party's attorney. 4. That before any plaintiff can begin litigation he must present to the clerk of court an affidavit and additional proof if the clerk of court deems it necessary, showing he has the means to pay court costs and the defendant's attorney fee, if the plaintiff should lose his case in court; and be it further

Resolved, That this resolution shall be submitted to the American Medical Association at its next meeting for its approval for state legislation.

CLINTON COUNTY MEDICAL SOCIETY
NO. 4. IOWA FOUNDATION FOR MEDICAL CARE

(Referred to Reference Committee on Foundation for Medical Care.)

WHEREAS, The planned Iowa Foundation for Medical Care is not deemed to be in the best interest of Iowa physicians as considered by the Clinton County Medical Society, and

WHEREAS, The proposed leadership of the Iowa Foundation for Medical Care is recommended to be the same leadership now representing physicians in the IMS and Blue Cross-Blue Shield; therefore be it

Resolved, That for the best interest of all physicians involved, the leadership of the Iowa Foundation for Medical Care not include any of the above members. That executive, judicial, or members representing the medical society and Blue Cross-Blue Shield shall not be members in a leadership capacity.

SCOTT COUNTY MEDICAL SOCIETY
NO. 5. SEAT BELT EQUIPMENT FOR BUSES

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

Resolved, In the light of recent events, that the Scott County Medical Society strongly urges the legislature of the State of Iowa to pass, in this session, legislation requiring the installation of approved passenger restraints or seat belt equipment in all buses designed and used for transportation of human passengers; this law shall apply to all buses, including school buses, privately and corporately owned buses for hire and city or municipal owned buses operated on public streets and highways in the State of Iowa; be it further

Resolved, That the Iowa Medical Society go on record in favor of and actively support passage of such legislation.

SCOTT COUNTY MEDICAL SOCIETY
NO. 6. CHIROPRACTIC

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, Chiropractic is a cult based on unscientific principles and constitutes a health hazard to the people of Iowa, and

WHEREAS, The AFL-CIO, National Council of Senior Citizens, Consumers Federation of America, National Association of Letter Carriers, the Health Insurance Benefits Advisory Council, the Department of Health, Education and Welfare, the National Advisory Commission on Health Manpower, the Alabama Council on Comprehensive Health Planning and other lay and professional organizations have all publicly opposed chiropractic, and

WHEREAS, The Iowa Medical Society's policy toward chiropractic legislation as outlined by the Executive Council in October of 1969 is one of tolerance, containment and maintenance of the status quo; and now therefore be it

Resolved, That this Society change its defensive policy to one that opposes, limits and eventually eliminates chiropractic in the State of Iowa; and be it further

Resolved, That the Iowa Medical Society actively support legislation that would require all applicants for license in the healing arts to be graduates of a

It is a basic right of every citizen to have available to him adequate health care; it is a basic right of every citizen to have a free choice of physician and institution . . . ; the medical profession using all means at its disposal, should endeavor to make good medical care available to each person. . . . Health care for the poor should be a vital part of the over-all health care system.

These are clips from policy statements of the medical profession's principal legislative body, the House of Delegates (Iowa has three delegates) of the American Medical Association. They affirm the profession's traditional belief that access to adequate medical care should be available to all citizens regardless of economic, social or any limiting condition.

How is this to be accomplished? This is the knotty and complex question. Many points of view exist. In fact, between 10 and 15 national health care proposals are simmering in the congressional kitchen. Needless to say, federal lawmakers will have their hands full analyzing the various recipes.

The American Medical Association is the author and advocate of one current national health care proposal. This program goes beyond the poor and disadvantaged in terms of outreach. It recognizes that people from all walks of life (what with costly scientific advances, an inflationary economy, etc.) can be left economically drained or seriously in debt after a long or severe illness.

The AMA program is formally titled the "Health Care Insurance Act of 1971" and is commonly called "Medicredit." It removes the economic barriers to high quality medical care which exist for the poor, as well as the financial hardship that quickly appears when a catastrophic illness strikes even those with adequate income.

MEDICREDIT IN BRIEF

Medicredit is a program which affords every person under 65 equal access to high quality medical care regardless of ability to pay. It proposes leaving Medicare essentially undisturbed, but it contemplates replacing the Medicaid program for the indigent and near-indigent.

Medicredit would provide everyone under 65 with a private program of comprehensive protection to cover both the ordinary and the catastrophic expenses of illness or accident. Flexible by design, its elective coverage might be in the form of a health policy from a private insurance company, through membership in a prepayment plan such as Blue Cross-Blue Shield, or in other variations. The choice of protection desired would be made by the family or individual. All of the Medicredit programs would be subject to approval by the individual states and subjected by the states to established national standards.

IN THE PUBLIC INTEREST

Iowa
a place to grow

For persons of low income unable to buy protection for themselves and their dependents, through Medicredit, the federal government would pay the total cost of the premium or membership. For persons whose income is higher, the federal contribution would be reduced following a graduated scale. As income rises, the federal contribution would diminish. Thus, the government would pay for all or a part of the basic coverage depending on the financial condition of the family or individual, with the yardstick being the federal income tax liability.

In other words, a 100 per cent federal subsidy would be granted at some level of income; it is proposed that full subsidy be authorized when no federal income tax is owed. Those who owe some income tax almost by definition have some disposable dollars. As tax liability increases, this is evidence that more and more disposable dollars could be used for the purchase of adequate insurance.

'MEDICREDIT' DESERVES SERIOUS CONSIDERATION

MEDICREDIT DOES NOT

Medicredit does not contemplate restructuring the entire health care system, a system which now provides good care for the majority of the population. Some of the other programs before Congress would discard what now exists and restructure the whole system along untried lines.

Medicredit does not hold one form of medical practice as the best or only effective system of patient care. It permits flexibility and innovation in developing new, more efficient ways to take care of people.

Medicredit does not obligate the government to pay for the care of those people who can afford to handle most of their own medical costs. The cost of Medicredit has been estimated at $14.5 billion for the first year—considerably lower than nearly all of the other national health proposals.

MEDICREDIT COVERAGE

In the basic coverage area, Medicredit approved protection would provide payment for these services:

Inpatient care: In a hospital or extended care facility for 60 days during a 12-month policy period, in a semi-private room. Within the 60-day limit, two days in an extended care facility would count as only one hospital day. Inpatient hospital services would cover all care customarily provided in a hospital, including bed, board and nursing services; drugs and oxygen; blood and plasma; biologicals and supplies; appliances and equipment furnished by the hospital; surgery or delivery room; recovery room, intensive care or coronary care unit; rehabilitation unit; care for pregnancy or any of its complications and psychiatric care. Similar comprehensive services would be covered in an inpatient extended care facility.

Outpatient or emergency care: The plan covers all care customarily provided as outpatient or emergency care, including diagnostic services; use of operating, cystoscopic and cast rooms and their supplies; and use of the emergency room and supplies.

Medical care: The Medicredit program would cover expenses of all medical services—preventive, diagnostic or therapeutic—provided or ordered by the physician, whether in a hospital, an extended care facility, the physician's office, the patient's home or elsewhere. These services would cover the broad spectrum of care including dental or oral surgery, anesthesiology, ambulance service, radiation therapy, etc.; cosmetic surgery would be excluded except when related to birth defects or burns or injury-caused scars.

Catastrophic coverage: This extended insurance would provide full pay for additional hospital days, plus an additional 30 days of extended care and the costs of prescribed prosthetic appliances, after basic coverage for hospitalization had been exhausted, and after the individual had incurred a certain expense dependent upon his income; the amount of expense or "corridor" would be directly in proportion to his financial condition.

Medical care services are not included under catastrophic coverage inasmuch as they continue without limit under the basic coverage.

To review, financial participation by the individual would be determined solely by the amount of federal income tax he or his family pays. If a person or family owes no federal income tax for the year—whether because of no income, low income or number of dependents—the total cost of the basic and catastrophic coverage would be paid by the federal government. The family would receive a "Certificate of Entitlement" to cover the entire premium or membership cost of a health care program.

For families or individuals who pay federal income tax, the formula is more involved. The cost of the approved policy or plan will divide into two parts. The major portion will be for the basic coverage; the remainder will provide the catastrophic care. The insurance company or plan will determine the amount for each component. The federal government will pay the total catastrophic coverage for everyone. And it will pay a percentage of the basic coverage based on the income tax.

The Medicredit plan purposely contains several deductible or co-insurance provisions to help curb costs and to prevent abuse or over-use of the program.

SUMMARY

Medicredit was designed to solve the most immediate and obvious problem relating to medical and health care; that of making it possible for everyone to seek the attention he needs without regard to his ability to pay. The program has been purposely structured so as to not become bogged down in details. It provides a well-designed, equitable, easily administered and practical solution. It affords a desirable mix of public and private resources to meet a need. It preserves the pluralistic approach to health care.

It deserves serious consideration.

school or college accredited by an accrediting agency recognized and approved by the National Commission on Accreditation and the Office of Education of the United States Department of Health, Education and Welfare.

WEBSTER COUNTY MEDICAL SOCIETY
NO. 7. MALPRACTICE

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, The frequency and size of malpractice claims against physicians constitutes a serious problem for physicians and their patients; and

WHEREAS, The physician is increasingly forced to consider the malpractice risks of any treatment situation, sometimes ahead of what is best for the patient medically and financially; and

WHEREAS, We believe that one of the major causes for this epidemic of litigation in the United States is the contingent fee system for remuneration of plaintiffs' attorneys; and

WHEREAS, The plaintiff in an unsuccessful medical malpractice suit has lost little but the defendant physician has suffered greatly, financially and otherwise; therefore be it

Resolved, That the American Medical Association embark on a vigorous campaign to:

(1) Lobby for federal legislation to eliminate or greatly curtail the contingent fee system.

(2) Consider pushing for legislation to require the unsuccessful plaintiff in a medical malpractice case to bear the legal cost of the defendant physician.

(3) Acquaint the American public with the inequities and injustices of the contingent fee system.

And be it further

Resolved, That the delegates to the AMA from the Iowa Medical Society be instructed to introduce a resolution containing these points to the House of Delegates of the American Medical Association.

STORY COUNTY MEDICAL SOCIETY
NO. 8. CHIROPRACTIC

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, Chiropractic is a cult based on unscientific principles and constitutes a health hazard to the people of Iowa and,

WHEREAS, The A.F. of L.-C.I.O., National Council of Senior Citizens, Consumer's Federation of America, National Association of Letter Carriers, the Health Insurance Benefits Advisory Council, the Department of Health, Education and Welfare, the National Advisory Commission on Health Manpower, the Alabama Council on Comprehensive Health Planning and other lay and professional organizations have all publicly opposed chiropractic and,

WHEREAS, The Iowa Medical Society's policy toward chiropractic legislation as outlined by the Executive Council in October of 1969 is one of tolerance, containment and maintenance of the status quo; therefore be it

Resolved, That:

(1) This Society change its defensive policy to one that opposes, limits and eventually eliminates chiropractic in the State of Iowa.

(2) The Iowa Medical Society actively support legislation that would require all applicants for license in the healing arts to be graduates of a school or college accredited by an accrediting agency recognized and approved by the National Commission on Accreditation and the Office of Education of the United States Department of Health, Education and Welfare.

POLK COUNTY MEDICAL SOCIETY
NO. 9. STANDARDS OF PRACTICE GOVERNING LAWYERS AND PHYSICIANS

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, An Agreement "Standards of Practice Governing Lawyers and Physicians" has been in effect since 1956, having been adopted by the Iowa Medical Society and the Iowa Bar Association at that time, and

WHEREAS, This document has not been reviewed since that time, and is now the subject of some speculation as to its value and its appropriateness; therefore be it

Resolved, That this agreement be reviewed and amended as necessary for the protection of all concerned.

H. E. RUDERSDORF, M.D., DELEGATE, WOODBURY COUNTY
NO. 10. IOWA FOUNDATION FOR MEDICAL CARE

(Referred to Reference Committee on Foundation for Medical Care.)

WHEREAS, The Iowa Medical Society has presented and defined the necessity for formation of an Iowa Foundation for Medical Care and

WHEREAS, The House of Delegates of the Iowa Medical Society on January 24, 1971, authorized the formation of an Iowa Foundation for Medical Care and

WHEREAS, The 700 active members of the Iowa Chapter of the American Academy of General Practice seek to render the best medical care in the world to the citizens of the State of Iowa and

WHEREAS, The largest proportion of practicing physicians in the State of Iowa are general practitioners; therefore be it

Resolved, That the Iowa Chapter of the American Academy of General Practice approves of the formation of an Iowa Foundation for Medical Care by the Iowa State Medical Society, and be it further

Resolved, That the Governing Board of the Iowa Foundation for Medical Care include general practitioners in proportion to the number of specialists so as to effectively and equally represent all doctors of medicine in the State of Iowa.

BLACK HAWK COUNTY MEDICAL SOCIETY
NO. 11. PEER REVIEW

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, Peer Review was initiated by Medicine as a mechanism for internal quality control, for continuing education of the profession and for the improvement of patient care; and

WHEREAS, This Peer Review function can only exist when performed by the medical profession, and ceases to exist when third parties are involved; and

WHEREAS, The contamination of this mechanism by the introduction of primarily financial goals of a third party destroys the very nature of peer review; therefore be it

Resolved, That Peer Review proceedings must remain confidential, performed only by designated representatives of the medical societies, and are not to be made available to third parties or their representatives.

BLACK HAWK COUNTY MEDICAL SOCIETY
NO. 12. BENNETT AMENDMENT # 851
(SOCIAL SECURITY AMENDMENT OF 1969 AND MEDICREDIT BILL)

(Referred to the Reference Committee on Insurance and Medical Service.)

WHEREAS, The Constitution and By-Laws of the Iowa Medical Society forbid the State or County Societies the power to contract the services of their members; and

WHEREAS, The Black Hawk County Medical Society, like all county medical societies in Iowa, has adhered to the principles of medical ethics using a forceful system of internal discipline; and

WHEREAS, The present system of Peer Review instituted by the Iowa Medical Society, individual county medical societies and local hospital staffs, provides adequate supervision of the practice of medicine and maintains high ethical standards of the profession; therefore be it

Resolved, That officers of the Iowa Medical Society and officers of the component county societies not be allowed to enter any agreement or contract with the Secretary of HEW or any other agency of the county, state or federal government, or any political subdivision or third party, for the purpose of Peer Review or any similar mechanisms; and be it further

Resolved, That the Iowa Medical Society reject similar proposals, embodied in the Bennett amendment, namely program or services review board in Social Security and/or Medicredit Bill that would be third party controlled.

PETER VAN ZANTE, M.D., DELEGATE, MARION COUNTY
NO. 13. MALPRACTICE VIEWS—AMA NEWS

(Referred to Reference Committee on Legislation and Miscellaneous Business.)

WHEREAS, The American Medical Association advises that our malpractice problem should be solved on a state basis, and

WHEREAS, To solve this problem we need a free and open discussion by our members as to what type of legislation we should strive to enact on a state basis, and

WHEREAS, Our main national news media where we should be able to express ourselves is the AMA NEWS, and

WHEREAS, Several members of the Marion County Medical Society have written a letter to the editor of the AMA NEWS proposing certain state legislation to combat unmerited malpractice suits but none were published and presumably others have had the same experience, and

WHEREAS, We cannot expect our malpractice problem to be solved by an outside agency—be it our government or another profession, that would strive for the best interests of the medical profession, therefore be it

Resolved, That the AMA delegates ask the editor of the AMA NEWS to publish letters from its members on proposed state legislation to solve our malpractice dilemma.

PAGE COUNTY MEDICAL SOCIETY
NO. 14. CURRENT PROCEDURAL TERMINOLOGY

(Referred to Reference Committee on Insurance and Medical Service.)

WHEREAS, There is a need for a universal system of coding and nomenclature, the AMA has adopted a five-digit coding of Current Procedural Terminology;

WHEREAS, This terminology represents proper coding for all procedures in all fields of medicine;

WHEREAS, Several state medical societies and several specialty societies have adopted this system as a proper guideline for services of physicians, rendered by all physicians; therefore be it

Resolved, That this method of procedural terminology be accepted by the Iowa Medical Society as the proper coding for all third party billing.

PAGE COUNTY MEDICAL SOCIETY
NO. 15. CIGARETTE ADVERTISING IN IMS JOURNAL

(Referred to Reference Committee on Reports of Officers.)

WHEREAS, The smoking of cigarettes is generally accepted to be harmful to health,

WHEREAS, The JOURNAL OF THE IMS is the official health publication of the Society, therefore be it

Resolved, That advertising of such products in said JOURNAL seem inappropriate and the editor be directed to discontinue such practice.

MAHASKA COUNTY MEDICAL SOCIETY
NO. 16. RESTRICTIONS ON NURSING HOME CALLS FOR MEDICARE AND MEDICAID PATIENTS

(Referred to Reference Committee on Insurance and Medical Service.)

WHEREAS, The Medicare and Medicaid Directive on February 16, 1971 limits the number of nursing home calls for Medicare and Medicaid patients to one per month unless further calls are justified to the satisfaction of the Social Security Administration; and

WHEREAS, The practical effect of such a directive will be to limit the liability of the Social Security Administration to one call per patient per month; and

WHEREAS, The responsibility of the physician will remain at an indeterminate number of calls consistent with good patient care and for which he may be held legally accountable in a court of law; and

WHEREAS, This was not the intent of the Title XVIII and XIX laws as passed by Congress; therefore be it

Resolved, (1) That such directive is not consistent with good patient care; (2) That the legal responsibility of the attending physician is deemed unreasonable and restrictive in relation to the financial liability of the Social Security Administration, and (3) This directive be tested in a court of law by the Iowa Medical Society at the earliest possible date.

LIFE AND ASSOCIATE MEMBERSHIPS

LIFE MEMBERSHIP RECOMMENDED ON THE BASIS OF 50 YEARS' PRACTICE AND 30 YEARS' MEMBERSHIP

County	*Name*
Black Hawk	James F. Gerken, Waterloo
Marion	Harold E. White, Knoxville
Polk	Harold N. Anderson, Des Moines
	Lawrence D. Smith, Des Moines
	John B. Synhorst, Des Moines
Woodbury	Charles F. Berkstresser, Sioux City

ASSOCIATE MEMBERSHIPS RECOMMENDED ON THE BASIS OF RETIREMENT OR INCAPACITATION

County	*Name*
Black Hawk	Gardner D. Phelps, Waterloo
Clinton	George C. Scanlan, Clinton
Humboldt	Ivan Schultz, Humboldt
	Nelle Schultz, Humboldt
Lee	Frank L. Poepsel, West Point
Keokuk	Edward R. Gann, Sigourney
Muscatine	Clarence P. Phillips, Muscatine
Polk	Henry G. Decker, Des Moines
	Charlotte Fisk, Des Moines
	William O. Purdy, Des Moines
	Floyd A. Springer, Des Moines
	Virginia D. Thompson, Des Moines
Woodbury	Raymond W. Wilhelmi, Sioux City

The physicians nominated for each of these membership categories were approved unanimously.

Dr. G. W. Bennett informed the Speaker that apparently a resolution from Mahaska County had been overlooked. Dr. Bennett then read Resolution No. 16 which appears on page 436.

Following the reading of the resolution, the Speaker announced the meeting places for the various reference committees and said that they would convene at 2:00 p.m. Delegates were informed that the House of Delegates would convene Wednesday morning, April 28, at 9:00 a.m. in the State Ballroom of the Fort Des Moines Hotel. They were asked to report promptly. The House adjourned at 12:36 p.m.

WEDNESDAY SESSION, APRIL 28, 1971

The Wednesday session of the House of Delegates was called to order at 9:05 a.m. The House approved the taking of attendance by registration cards. There were 114 delegates, 8 voting alternates and 13 ex officio members present.

County	*Delegate*	*Alternate*
Allamakee	B. R. Withers	
Benton	P. J. Amlie	
Black Hawk	D. E. Conklin	
	R. S. Gerard, III	
	Fred Dick, Jr.	
	C. D. Ellyson	
	G. R. Clark	
Boone	E. E. Linder	
Bremer	V. H. Carstensen	
Buena Vista	Arthur Ames	
Calhoun	R. P. Ferguson	
Carroll	J. M. Tierney	
Cass	K. R. Swanson	
Cedar	G. H. Utley	
Cerro Gordo	J. Y. Hendricks	
	W. V. Wulfekuhler	
	H. L. Brenton	
Cherokee	R. D. Berge	
Chickasaw	J. C. Carr	
Clarke	J. D. Kimball	
Clay	J. E. Kelly	
Clinton	J. L. Monahan	
	G. R. Schmunk	
Crawford	D. J. Soll	
Dallas-Guthrie	W. A. Seidler	
Davis	Richard Schoonover	
Dacatur-Ringgold	E. E. Gamet	
	D. E. Mitchell	
Delaware	J. E. Tyrrell	
Des Moines-Louisa	J. F. Foss	
Dickinson	D. F. Rodawig, Jr.	
Dubuque	J. W. White	
Fayette		R. S. Jaggard
Floyd	D. L. Trefz	
Franklin	R. E. Munns	
Fremont	F. M. Ashler	
Grundy	M. P. Vanden Bosch	
Hancock-Winnebago	L. R. Fuller	
Hardin	T. C. Graham	
Harrison	J. W. Barnes	
Humboldt	Beryl Michaelson	
Ida	J. B. Dressler	
Iowa	D. R. Miller	
Jackson	J. A. Broman	
Jasper	R. F. Frech	
Jefferson	G. E. Egli	
Johnson	T. T. Bozek	
	K. R. Cross	
	C. R. Eicher	
	R. T. Soper	
	K. J. Judiesch	
	Jack Moyers	
	A. S. Norris	
	C. E. Radcliffe	
	J. I. Gardner	
		S. J. Curtis
		R. D. Whinery
Jones	E. H. DeShaw	
Keokuk	Opas Jutabha	
Kossuth	R. E. Jongewaard	
Lee	G. C. McGinnis	
	B. E. Peterson	
Linn	R. A. Sautter	
	C. R. Aschoff	
	R. M. Chapman	
	D. D. Morgan	
	R. W. Conkling	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	L. O. Goodman	
	W. T. Shultz	
Mitchell	R. G. Boeke	
Monona	J. L. Garred	
Montgomery	Oscar Alden	
Muscatine	K. E. Wilcox	
O'Brien		I. E. Brown
Page	W. G. Kuehn	
Pocahontas		J. M. Rhodes
Polk	H. E. Wichern	
	N. K. Rinderknecht	
	J. I. Hostetter	
	Wallace Rindskopf	
	R. E. Hines	
	A. N. Smith	
	W. R. Hornaday, Jr.	
	J. L. Fatland	
	John Hess, Jr.	
	J. W. Green, Jr.	
		M. H. Dubansky
		L. O. Ely
		H. C. Blount, Jr.
Pottawattamie-Mills	Hormoz Rassekh	
	A. L. Sciortino	
	M. E. Olsen	
	M. L. Scheffel	
Sac	John Hubiak	
Scott	J. F. Bishop	
	D. A. Bovenmyer	
	J. F. Collins	
	J. E. Sinning, Jr.	
Shelby	J. H. Spearing	
Sioux	L. K. Yates	
Story	W. R. Bliss	
	W. A. Bockoven	
Tama	A. J. Havlik	
Union-Taylor	R. H. Kuhl	
	R. W. Boulden	
Wapello	R. P. Meyers	
	L. E. Coppoc	
Washington	M. L. McCreedy	
Wayne	K. A. Garber	
Webster	J. F. Kelly	
	R. W. Lee	
Winneshiek	T. F. Dynes	
Woodbury	C. L. Beye	
	H. E. Rudersdorf	
	P. M. Cmeyla	
	R. C. Larimer	
Worth	B. H. Oster	
Wright	C. P. Hawkins	

LIAISON DELEGATES

S. P. Leinbach C. W. Seibert

EX OFFICIO MEMBERS OF THE HOUSE

J. H. Sunderbruch	H. G. Marinos
L. J. O'Brien	L. D. Caraway
H. R. Hirleman	L. W. Swanson
V. L. Schlaser	H. J. Smith
K. E. Lister	E. M. Smith
R. L. Wicks	H. L. Skinner
J. F. Paulson	

Dr. Schlaser read the minutes of the April 25 meeting of the House of Delegates and the House approved them.

Dr. Raymond Jackman, President of the Minnesota State Medical Society, Dr. George Behnke, President of the State Medical Society of Wisconsin, Dr. L. T. Fruin, President-elect of the Illinois State Medical Society, and Robert Warnick, Assistant Director of the

Department of Field Services of the AMA, were introduced by Dr. Caraway and recognized by the House.

Prior to the election of officers, Dr. Oscar Alden asked that his name be withdrawn from nomination as a trustee and a unanimous ballot be cast for Dr. J. F. Bishop.

The election of officers followed, and the following physicians were chosen:

President-elect	K. E. Lister, M.D., Ottumwa
Vice-president	R. H. Flocks, M.D., Iowa City
Trustee	J. F. Bishop, M.D., Davenport
Secretary	V. L. Schlaser, M.D., Des Moines
Treasurer	T. A. Burcham, M.D., Des Moines
Speaker of the House	L. D. Caraway, M.D., Monticello
Vice-speaker of the House	H. L. Skinner, M.D., Carroll
Delegate to AMA	E. M. Smith, M.D., Des Moines
Alternate Delegate to AMA	C. E. Radcliffe, M.D., Iowa City
Councilor, District 2	H. G. Marinos, M.D., Mason City
Councilor, District 7	J. E. Tyrrell, M.D., Manchester
Councilor, District 8	J. F. Collins, M.D., Davenport
Councilor, District 9	K. A Garber, M.D., Corydon
Councilor, District 12	E. E. Linder, M.D., Ogden
Blue Shield Liaison Delegates to IMS	S. P. Leinbach, M.D., Belmond C. W. Seibert, M.D., Waterloo

Reference Committee Reports

The following reference committee reports were acted upon by the House of Delegates.

ARTICLES OF INCORPORATION AND BY-LAWS

The Reference Committee on the Articles of Incorporation and By-Laws met in open session at 2:00 p.m., Sunday, April 25, 1971 to consider a resolution presented by the Polk County Medical Society regarding representation in the House of Delegates. Various members of the Society appeared before the Committee and expressed their views in support of and in opposition to the resolution.

The Reference Committee has concluded that there are some existing inequities in the present method of determining representation in the House of Delegates but did not feel the concept contained in the resolution is the only proposal that might be considered.

RECOMMENDATION: Mr. Speaker, your Reference Committee recommends that the Iowa Medical Society's Committee on Articles of Incorporation and By-Laws give further study to the matter of representation in the House of Delegates.

Mr. Speaker, I move adoption of the foregoing recommendation.

Respectfully submitted,
R. P. FERGUSON, M.D., *Chairman*
HORMOZ RASSEKH, M.D.
K. J. JUDIESCH, M.D.
E. H. DESHAW, M.D.
FRED DICK, JR., M.D.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met at 2:00 p.m. on Sunday, April 25, 1971 to consider and make recommendations on the following items:

REMARKS OF THE PRESIDENT-AUDIO/VISUAL PRESENTATION

The Reference Committee was unanimous in its praise of the audio/visual presentation demonstrating the scope of IMS activities, and the manner in which the individual member's dues dollar is disbursed.

The Reference Committee commends the officers and staff for the development of this presentation, and pays special tribute to Mr. Don Neumann, the staff member who actually put it all together.

RECOMMENDATION: The Reference Committee recommends that this audio/visual slide program, with added emphasis on programs implemented by the Society in the public interest, be made available to each county medical society, and that each delegate encourage their respective societies to schedule a showing of it at some early date.

Mr. Speaker, I move the adoption of the foregoing recommendation.

RECOMMENDATION: Recognizing that the presentation as developed is geared strictly for an audience of Iowa physicians, the Reference Committee further recommends that certain portions of it dealing with public service projects—such as weight determinations for high school wrestlers, the Hawkeye Science Fair, drug abuse education programs—be broadened and developed into another similar slide presentation for public viewing, perhaps at local high schools, civic clubs, etc.

Mr. Speaker, I move the adoption of the foregoing recommendation.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES SECTION I—FINANCES

Attention was given by the committee to information relating to the decrease in dues income as a result of an increase in the number of non dues-paying physicians in the state.

The committee members concurred that even though these physicians do not belong to the Iowa Medical Society, they do, in effect, reap most of the benefits afforded by it, as illustrated in the slide presentation, without assuming any responsibility for support of the Society—financial and otherwise.

RECOMMENDATION: The Reference Committee shares the concern of the Board of Trustees with respect to non dues-paying physicians and, in an effort to bring them into membership, the Reference Committee recommends that officers of the Society make every effort to establish closer liaison with the Iowa Academy of Family Practice and the specialty groups in the state, and seek their assistance in making known to their members the importance of maintaining membership in the IMS; also, that non dues-paying members be encouraged to become active in Society affairs by their colleagues at the local level—e.g., county society officers, delegates to the IMS, District councilors.

Mr. Speaker, I move the adoption of the foregoing recommendation.

The Reference Committee compliments the Board of Trustees for instituting a new automatic dues billing procedure in 1970 as an additional service to county medical societies.

RECOMMENDATION: The Reference Committee recommends endorsement of the new dues billing service by the House of Delegates.

Mr. Speaker, I move the adoption of the foregoing recommendation.

The Reference Committee noted with pleasure the more positive report with respect to the publication and financial status of the JOURNAL OF THE IOWA MEDICAL SOCIETY.

RECOMMENDATION: The Reference Committee recom-

mends that Dennis Kelly, Sr., M.D., who recently retired as Scientific Editor of the JOURNAL after ten years in this post, be commended by the House of Delegates for his outstanding service.

Mr. Speaker, I move the adoption of the foregoing recommendation.

RECOMMENDATION: The Reference Committee wholeheartedly concurs with the Board of Trustees regarding IMS membership dues, and recommends that the 1972 dues be maintained at the present level.

Mr. Speaker, I move the adoption of the foregoing recommendation.

RESOLUTION NO. 15—INTRODUCED BY PAGE COUNTY MEDICAL SOCIETY

CIGARETTE ADVERTISING IN IMS JOURNAL

The resolution from the Page County Medical Society calling for an end to cigarette advertising in the IMS JOURNAL provoked the most lively discussion of the hearing. However, the Reference Committee regrets that no member of the Page County Medical Society was present to speak in behalf of the resolution.

RECOMMENDATION: The Reference Committee recommends that the House of Delegates direct that, after present commitments have been met, no further advertisements involving tobacco products be accepted by or placed in the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Mr. Speaker, I move the adoption of the foregoing recommendation.

Respectfully submitted,
C. R. ASCHOFF, M.D., *Chairman*
J. W. WHITE, M.D.
G. C. MCGINNIS, M.D.
J. D. KIMBALL, M.D.
D. J. OTTILIE, M.D.

COMMITTEE ON LEGISLATION AND MISCELLANEOUS BUSINESS

The Reference Committee on Legislation and Miscellaneous Business met in open session on April 25, 1971. Reports and resolutions assigned to the Committee were discussed at length.

Upon completion of the open hearings the Committee met in Executive Session. Some of the items assigned to the Committee were duplicate in content and in the interest of efficiency your Reference Committee has grouped together those items which speak to the same or related subject.

SUPPLEMENTAL REPORT OF COMMITTEE ON LEGISLATION
SUPPLEMENTAL REPORT FROM COMMITTEE ON QUACKERY
RESOLUTION NO. 6—INTRODUCED BY THE SCOTT COUNTY MEDICAL SOCIETY
CHIROPRACTIC
RESOLUTION NO. 8—INTRODUCED BY THE STORY COUNTY MEDICAL SOCIETY
CHIROPRACTIC

Your Reference Committee agrees that the cult of chiropractic is a hazard to the health of the citizens of Iowa, and recognizes that chiropractic will continue to be a challenge in future legislative sessions and suggests that each physician take it upon himself to educate his patients and his elected officials as to the hazards of chiropractic.

Your Reference Committee recognizes that the Committee on Legislation has studied well over 100 items of legislation affecting the practice of medicine and realizes that priorities must be established.

During its deliberations your Reference Committee was made aware of House File 383 currently in the House Social Services Committee of the Iowa legislature. This bill requires that to be licensed in the healing arts a person must have graduated from a school or college accredited by an agency recognized by the National Commission on Accrediting and Office of Education of the Department of Health, Education and Welfare.

Your Reference Committee felt that accreditation of chiropractic schools in the future would not serve as a basis to limit or restrict chiropractic. Although the delegates who testified were confident that chiropractic schools could not become accredited, the members of your Reference Committee were not convinced that in the future chiropractic schools would not be able to secure accreditation.

While the Reference Committee members were in complete agreement with the philosophy of the delegates speaking at the open hearing regarding the practice of chiropractic, the consensus of the committee members is that it is not politically feasible, at this time, to assume a more aggressive posture regarding chiropractic legislation.

RECOMMENDATION: The Reference Committee recommends the following substitute Resolution in lieu of Resolutions No. 6 and No. 8 and in answer to the Supplemental Reports of the Committee on Legislation and the Committee on Quackery:

Resolved, That the policy of the Iowa Medical Society shall be to oppose, limit, and eventually eliminate the cult of chiropractic in the State of Iowa; and be it further

Resolved, That the Committee on Legislation be directed to assume a more aggressive position when the climate of the legislature warrants introducing legislation to further limit and restrict the cult of chiropractic.

Mr. Speaker, I move the adoption of this recommendation, as amended.

The first Resolved was added by amendment on a motion by Dr. J. E. Sinning, Jr.

RESOLUTION NO. 2—INTRODUCED BY THE MARION COUNTY MEDICAL SOCIETY
MALPRACTICE SUIT LIMITATION

Your Reference Committee was advised of the Rules of Civil Procedure, as defined in Section 215.1 of the Code of Iowa, requiring that a case must be brought to trial within one year from the date it is filed and docketed.

Mr. Speaker, I move Resolution No. 2 be disapproved.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES
SECTION III—PROFESSIONAL LIABILITY INSURANCE
RESOLUTION NO. 3—INTRODUCED BY THE MARION COUNTY MEDICAL SOCIETY
VEXATIOUS LITIGATION
RESOLUTION NO. 7—INTRODUCED BY THE WEBSTER COUNTY MEDICAL SOCIETY
MALPRACTICE

Your Reference Committee is concerned about the problem of malpractice claims and vexatious litigation. The members of your Committee noted the following actions stated in Section III of the Supplemental Report of the Board of Trustees regarding Professional Liability Insurance: (1) contacts with representatives of those carriers providing professional liability coverage; (2) periodic meetings with attorneys who are called upon regularly to represent physicians in malpractice suits, and (3) current IMS efforts involving a survey of the membership to determine extent of malpractice activity in Iowa.

Because of the actions underway by the Board of Trustees, as outlined above, your Reference Committee feels it would be premature to submit any definitive recommendations regarding professional liability insurance, vexatious litigation or malpractice claims to this session of the House of Delegates.

RECOMMENDATION: The Reference Committee recommends that Resolutions No. 3 and No. 7 be referred to the Board of Trustees for further evaluation.

Mr. Speaker, I move the adoption of this recommendation.

RESOLUTION NO. 13—INTRODUCED BY PETER VAN ZANTE, M.D., MARION COUNTY DELEGATE MALPRACTICE VIEWS—AMA NEWS

Your Reference Committee is in agreement with the spirit of the Resolution but feels the editorial policy of the AMA NEWS is not within the province of the IMS delegates to the AMA.

Mr. Speaker, I move Resolution No. 13 be disapproved.

RESOLUTION NO. 9—INTRODUCED BY THE POLK COUNTY MEDICAL SOCIETY STANDARDS OF PRACTICE GOVERNING LAWYERS AND PHYSICIANS

Your Reference Committee noted that the Standards of Practice Governing Lawyers and Physicians had not been updated since 1956 and thus felt it would be wise to do so.

RECOMMENDATION: The Reference Committee recommends that Resolution No. 9 be approved and referred to the appropriate committee.

Mr. Speaker, I move the recommendation be approved.

RESOLUTION NO. 5—INTRODUCED BY THE SCOTT COUNTY MEDICAL SOCIETY SEAT BELT EQUIPMENT FOR BUSES

Your Reference Committee is well aware of the value of restraining equipment in buses.

RECOMMENDATION: The Reference Committee recommends the following substitute Resolution in lieu of Resolution No. 5:

Resolved, That the Iowa Medical Society be in favor of and support legislation to require the installation of approved passenger restraints or seat belt equipment in all buses designed and used for transportation of human passengers.

Mr. Speaker, I move the adoption of the foregoing recommendation.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON BLOOD BANKING

Your Reference Committee commends Dr. W. S. Pheteplace for his efforts in studying the problems of blood banks in Iowa.

RECOMMENDATION: Your Reference Committee recommends that the Iowa Medical Society suggest the Iowa Association of Blood Banks develop a proposal for the establishment of a statewide group procurement and blood assurance program designed to organize the blood resources within the State of Iowa, for the citizens of Iowa; further, that, any proposal drafted by the IABB be submitted to the Iowa Medical Society.

Mr. Speaker, I move the adoption of this recommendation.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

Your Reference Committee members reviewed the portion of the report on Comprehensive Health Care (SF 239—HF 525) and the critique by R. B. Throckmorton regarding this proposed legislation. The Committee members noted the recommendation of the Committee on Legislation pertaining to Comprehensive Health Care.

RECOMMENDATION: Your Reference Committee recommends that the officers of the IMS be authorized to join with other interested individuals and organizations such as health insurance underwriters, Blue Cross-Blue Shield, those representing health facilities and others in a detailed analysis of Health Maintenance Organizations (HMO) and the type of experimental program which might be implemented in Iowa to determine the extent to which HMO's may be of value in providing medical care and health care to Iowa citizens.

Mr. Speaker, I move the adoption of this recommendation.

Respectfully submitted,
C. L. BEYE, M.D., *Chairman*
T. T. BOZEK, M.D.
E. E. GAMET, M.D.
J. W. GREEN, JR., M.D.
G. R. SCHMUNK, M.D.

COMMITTEE ON INSURANCE AND MEDICAL SERVICE

The Reference Committee on Insurance and Medical Service met in open session at 2:00 p.m. Sunday, April 25, 1971. A large number of physicians including members of the Blue Shield Board of Directors and Blue Shield executive staff members participated in the discussion. There was free and open debate on the two reports and four resolutions.

SUPPLEMENTAL REPORT OF THE SUBCOMMITTEE ON MEDICAL REVIEW

The primary item in the Subcommittee's report deals with payment for surgery and surgical assistants under Medicare. This matter was before the House of Delegates in 1970 and was referred back to the Subcommittee for additional consideration. During the past year the Subcommittee again studied its original report and following a review with the Executive Council, agreed the report should be submitted once again to the 1971 House of Delegates. Several questions were posed in the open hearings as to the effect

of the report on present billing practices involving surgery and surgical assistants. Many physicians expressed sincere reservations on how this 5-component billing system may affect their individual practices and what impact it may have on the cost of medical care. The Reference Committee was told Medicare officials continue to insist that the Carrier more accurately document charges for surgery and surgical assistants. There is within the Reference Committee some difference of opinion on this matter; however, it was agreed that one recommendation would be submitted to the House for debate and action.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends that in the future all Medicare claims submitted by physicians should indicate which of the five components of a surgical illness are represented by the charge listed on the claim form, i.e., (1) The patient workup; (2) Normal pre-operative care; (3) Surgery; (4) Surgical Assistant; and (5) Normal post-operative care.

Mr. Speaker, I move the adoption of the foregoing recommendation.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES SECTION II—BLUE SHIELD

The Reference Committee is impressed with the progress by Iowa Blue Shield in implementing past recommendations adopted by this House of Delegates, specifically in converting low level full service contracts to Usual, Customary and Reasonable programs. The Reference Committee also took note of the excellent liaison that exists between Blue Shield and the Iowa Medical Society, including meetings between officers and the ongoing joint Field Service Program.

The past two regular meetings of the House of Delegates have taken note of two specific concepts included in the Usual, Customary and Reasonable Blue Shield programs. The Reference Committee wishes to again review these with the House. They are the "hold harmless" and "prior agreement" provisions. This House of Delegates has acknowledged the controls that are inherent in the UCR program. The two provisions, i.e., "hold harmless" and "prior agreement," relate to the area of voluntary control by physicians.

It is apparent that as more UCR contracts are sold a more thorough understanding of these two provisions will be required by both physicians and their patients. "Hold harmless" requires the physician, be he participating or not, to accept the payment determined to be UCR (by Blue Shield and/or Peer Review) as payment in full. "Prior agreement" permits the physician to reach an agreement with his patient prior to submission of a claim to Blue Shield, which enables him to collect his full charge regardless of the payment determination made by Blue Shield.

RECOMMENDATION: The Reference Committee recommends that Blue Shield and the Iowa Medical Society continue to work together in refining the exact interpretation of the two concepts and clearly explain them to physicians and Blue Shield subscribers.

Mr. Speaker, I move the adoption of this recommendation.

At this point approval was given to a motion by Dr. H. E. Wichern to reject the philosophy conveyed in the two paragraphs preceding the recommendation. After extended discussion it was moved that the action represented in the motion by Dr. Wichern be rescinded. This motion to rescind, which required a two-thirds vote, failed by a 63 aye—43 nay vote. After further discussion, approval was given a motion by Dr. Jack Moyers which declared that the concept of usual, customary and reasonable fees shall be the policy of the Iowa Medical Society.

The Reference Committee is aware of the intense interest being expressed by various individuals and organizations, including the present federal administration relating to Health Maintenance Organizations. It is understood that another reference committee will be considering this matter in greater detail, but it should be brought to the House's attention that the Executive Council has adopted a recommendation suggesting that Blue Shield officials explore the feasibility of serving as an HMO on an experimental basis.

RESOLUTION NO. 11—INTRODUCED BY BLACK HAWK COUNTY MEDICAL SOCIETY PEER REVIEW

The representative from Black Hawk County Medical Society made it clear that the intent of Resolution No. 11 is to protect the confidentiality of the formal proceedings of peer review committees and to make certain that peer review is performed only by physicians. This House of Delegates has strongly endorsed a policy indicating that peer review is acceptable only when performed by physicians.

RECOMMENDATION: The Reference Committee recommends the following substitute Resolution in lieu of Resolution No. 11:

Resolved, That peer review must be performed only by designated physician representatives of medical societies. The proceedings of peer review must remain confidential and not be made available to third parties or their representatives; however, the final recommendation of peer review should be made available to third parties.

Mr. Speaker, I move the adoption of the foregoing recommendation, as amended.

The Resolved was amended to insert the word "physician" after the word "designated."

RESOLUTION NO. 12—INTRODUCED BY THE BLACK HAWK COUNTY MEDICAL SOCIETY BENNETT AMENDMENT #851 (SOCIAL SECURITY AMENDMENT OF 1969 AND MEDICREDIT BILL)

The intent of Resolution No. 12 is to make certain that peer review is performed by physicians and not directly by any third party, specifically (1) any governmental agency of a county, state or federal government; (2) any political subdivision; or (3) any third party. The Reference Committee agrees with this concept and believes that physicians through their medical organizations must perform peer review if it is to be effective and accepted by the medical profession.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends the adoption of the following substitute Resolution in lieu of Resolution No. 12:

Resolved, That the Iowa Medical Society and its component county societies cooperate and participate in any peer review program, be it public or private, only when peer review is to be conducted by physicians and that any agreement, be it contractual or voluntary, entered into by the Iowa Medical Society or a

component county society be contingent upon the requirement that peer review be conducted by physicians; and be it further

Resolved, That the Iowa Medical Society reject any proposal such as those embodied in the original Bennett Amendment wherein peer review would be conducted by other than member physicians and would be under third party control.

Mr. Speaker, I move the adoption of the foregoing substitute resolution.

RESOLUTION NO. 14—INTRODUCED BY PAGE COUNTY MEDICAL SOCIETY
CURRENT PROCEDURAL TERMINOLOGY

During discussion on the Resolution, it was made known that Medicare presently will not accept the cost of the Carrier converting from a 4-digit procedural coding system to a 5-digit system as embodied in the AMA Current Procedural Terminology. The Reference Committee is aware that there is currently considerable debate throughout the United States as to the acceptance of a 5-digit coding system versus a 4-digit coding system for medical procedures. The Reference Committee feels that since the 5-digit coding is relatively new and in view of the reluctance of several Carriers to accept the cost of immediately converting from the 4-digit to 5-digit, that adoption of the Resolution would be premature.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends that Resolution No. 14 be referred to the proper committee of the Iowa Medical Society for review as the matter of 5-digit versus 4-digit procedural coding is being considered.

Mr. Speaker, I move the adoption of the foregoing recommendation.

RESOLUTION NO. 16—INTRODUCED BY THE MAHASKA COUNTY MEDICAL SOCIETY
RESTRICTIONS ON NURSING HOME CALLS FOR MEDICARE AND MEDICAID PATIENTS

In discussing this Resolution, it immediately became apparent to the Reference Committee that the Iowa Medical Society is in no position fiscally or otherwise to undertake a court suit to test the validity of the HEW regulations limiting nursing home calls for Medicare and Medicaid patients. The IMS and AMA have both registered formal dissatisfaction with this type of regulation which tends to restrict the physician's freedom to practice medicine as he chooses. The Reference Committee shares the concern of Mahaska County as to the legal responsibility of the attending physicians in these instances. It is the position of the Iowa Medical Society that any apparent abuses of Medicare, Medicaid or other programs should be handled through the peer review program rather than by federal directives, which are unduly restrictive. The Reference Committee notes that under this regulation the physician does have an opportunity to bill for more than one nursing home call per month where this is justified by the medical circumstances and reported by the physician.

RECOMMENDATION: Mr. Speaker, the Reference Committee recommends that the following substitute Resolution be adopted in lieu of Resolution No. 16:

Resolved, That the Iowa Medical Society encourage all third parties (public and private) to utilize the peer review program in those instances where the third party feels that an abuse may exist which requires additional professional review and recommendation.

Mr. Speaker, I move the adoption of this recommendation.

Respectfully submitted,
E. E. LINDER, M.D., *Chairman*
D. F. RODAWIG, JR., M.D.
R. W. CONKLING, M.D.
H. L. BRENTON, M.D.
RICHARD SCHOONOVER, M.D.

COMMITTEE ON FOUNDATION FOR MEDICAL CARE

This Reference Committee offers its admiration and gratitude to all those Society members who contributed so much at the three-hour open hearing Sunday afternoon, April 25, 1971. It is felt that full consideration was given the Iowa Foundation for Medical Care.

The Society has been asked to embark upon a voyage whose course lies among fog shrouded reefs half hidden in foam and whose destination is, at best, uncertain. Yet, there seemed to be an awareness that setting forth upon the voyage would be less hazardous than not trying it at all. The discussion during the hearing was filled with questions, doubts, arguments, and exhortations, but this is as it should be.

So very often, the best answer to a problem is that which is heated in the flames of controversy and hammered into shape on the anvil of dispute. If this voyage is undertaken, and this Committee unanimously believes it should be, it will have had the benefit of your wide-ranging discussion as well as the informal expressions of opinion garnered since.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES
SECTION IV—FOUNDATION FOR MEDICAL CARE
RESOLUTION NO. 4—INTRODUCED BY CLINTON COUNTY MEDICAL SOCIETY
IOWA FOUNDATION FOR MEDICAL CARE
RESOLUTION NO. 10—INTRODUCED BY H. E. RUDERSDORF, M.D.
DELEGATE FROM WOODBURY COUNTY
IOWA FOUNDATION FOR MEDICAL CARE

The Reference Committee reviewed Section IV of the Supplemental Report of the Board of Trustees, with its persuasive arguments in support of the Foundation concept. This material was received as information and will not be acted upon separately.

The Committee also considered Resolution No. 4 submitted by Clinton County which requested that officers of the Foundation not be officers of either the Iowa Medical Society or Blue Shield. Certain revisions in the proposed Foundation Articles of Incorporation and By-Laws will be submitted later in this report and will include modifications in the method of selection of officers.

Resolution No. 10 from Woodbury County is concerned as well with the proposed manner of selecting Foundation leadership and asks specifically for assurance that a proportionate number of general practitioners be represented on the Foundation Board of Directors.

As mentioned, the Reference Committee, in the balance of this report, will advance specific revisions in the proposed Foundation Articles and By-Laws, in-

cluding those sections dealing with the selection of the leadership.

RECOMMENDATION: That Resolutions No. 4 and 10 be not adopted, and that the House consider the alternatives recommended in the balance of this Report.

Mr. Speaker, I move the adoption of this recommendation.

ARTICLES OF INCORPORATION

The Reference Committee reviewed, one-by-one, the proposed Articles of Incorporation for the Iowa Foundation for Medical Care. The following modifications in the draft language are recommended:

RECOMMENDATION: That in Article II, Section J the word "them" be deleted and the words "to contract for them" be inserted after the word "desiring." This would cause item J to read: "To make available the organization's reviewing and consultative services to any governmental or private health care program desiring to contract for them."

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: From Article IV strike the word "eight" and insert the word "twenty-one"; then eliminate the names presently listed and substitute therefor those officers, trustees and councilors of the Iowa Medical Society in office at the adjournment of the 1971 Annual Session of the Iowa Medical Society House of Delegates, plus the immediate past-president.

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: That the names of the initial incorporators listed in Article VIII be deleted and that there be substituted for them a listing of the officers and trustees in office at the close of the 1971 meeting of the Iowa Medical Society House of Delegates, plus the immediate past president.

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: That the following new paragraph be inserted following Article VIII:

ARTICLE NINE

These Articles of Incorporation and the By-Laws of this corporation may be amended by a two-thirds (⅔) vote of the directors then holding office, subject however, to the right of the members to disapprove any amendment, as may be provided in the By-Laws. The right of members to disapprove such amendments shall in no event be construed to constitute "voting" pursuant to S504A.35 Code of Iowa (1971), or any subsequent amendments thereto.

Mr. Speaker, I move the adoption of this recommendation.

BY-LAWS

The Reference Committee studied, also one-by-one, the proposed By-Laws for the Foundation. The following recommendations are offered in connection with the *By-Laws:*

RECOMMENDATION: In Article Three, Section 1, substitute "1972" for "1971" and strike the words "the election of three directors shall take place, and" and the word, "other" so Section 1 will read:

SECTION 1. ANNUAL MEETING. The annual meeting of the members shall be held on such date as the Board of Directors shall by resolution specify within a period commencing on July 1 and ending on August 15 in each year, beginning with 1972.

At each annual meeting, such business shall be transacted as may be properly presented to the meeting.

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: That the following paragraph be substituted for Article Four, Section 1:

ARTICLE FOUR
DIRECTORS

SECTION 1: Until the adjournment of the first annual meeting of the members in 1972, the directors shall be the President, President-elect, Vice-president, Secretary, Treasurer, Immediate Past President, the three Trustees, and the 12 Councilors of the IMS.

Upon adjournment of such first annual meeting, the directors shall be the President, President-elect, Vice-president, Secretary, Treasurer and the three Trustees of the IMS and 12 additional directors, each of whom shall have been elected by the members of the Councilor District of the IMS in which the newly-elected director resides. The terms of the 8 directors shall be concurrent with their terms as officers or trustees of the IMS. The term of the 12 directors initially shall be 1 year for those elected from Districts 1 through 4, 2 years for those elected from Districts 5 through 8, and 3 years for those elected from Districts 9 through 12 but all directors elected at the expiration of the initial term and thereafter shall be elected for a 3 year term.

All directors shall at all times be members of the corporation.

Prior to the annual meeting in 1972 and prior to each annual meeting thereafter the directors shall design and implement a fair procedure for the nomination, by members in each councilor district for which a director is to be elected, of candidates for the office of director and the directors shall further design and implement a fair procedure for the election of a director by the members in such district. Both the nomination and election procedures shall be designed to permit full participation by all members in the district. At each annual meeting the President of the corporation shall present to the members the names of the directors so elected and they shall take office immediately upon adjournment of the annual meeting.

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: That Article Four, Section 8 be amended by striking the period after "Directors" and inserting in lieu thereof the following: "; provided however that from and after the annual meeting in 1972 any vacancy as to any of the 12 councilor district directors shall be filled by the members in that district in accordance with the nominations and election procedures provided in Section 1 of this Article Four."

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: That Article Seven be amended to read as follows:

ARTICLE SEVEN
COMMITTEES

The President shall, by and with the advice and consent of the Board of Directors, appoint all commit-

tees not otherwise provided for, and shall be, ex officio, a member of all committees appointed by him. He may assign to such committees any powers and duties not in conflict with these Articles and By-Laws provided that the terms of such committees shall not extend beyond the next ensuing annual meeting unless continued by order of the Board of Directors.

Mr. Speaker, I move the adoption of this recommendation.

RECOMMENDATION: Article 12. Insert in place of the suggested procedures for amending or repealing the By-Laws the following procedures:

ARTICLE TWELVE

These By-Laws or the Articles of Incorporation of the corporation may be amended by a two-thirds (⅔) vote of the directors then holding office, provided that any such amendment shall not become effective if a majority of the members disapprove of it as hereinafter provided. The procedure for submitting an amendment for the approval or disapproval of the members shall be as follows: After the adoption by the directors of any amendment contemplated by this Article 12, the Secretary shall prepare a ballot for use of members, setting forth thereon the amendment as passed by the Board of Directors and soliciting the approval or disapproval of such amendment by the members. The ballots shall be mailed by ordinary mail to each member of the corporation at his post office address as it appears in the records of the corporation. Enclosed with the ballot shall be an envelope properly addressed for return of the ballot. Upon completion of mailing the Secretary shall execute an affidavit showing the date and place of mailing and to whom mailed, which affidavit shall be part of the corporate records. Said ballots, in order to be counted, must be received on or before the 30th day after mailing as shown by the affidavit described above. Prior to the end of such 30 day period the President shall appoint three tellers from among the members, none of whom shall be a director, who shall canvass the vote after expiration of such 30 day period, and report the result in writing to the President. A tie vote shall be resolved by lot by the tellers and so reported. The amendment so submitted shall become effective after said 30 day period unless a majority of the members of record disapprove of said amendment in the manner hereinbefore prescribed.

Mr. Speaker, I move the adoption of this recommendation.

Mr. Speaker, I move ratification and approval of the proposed Articles and By-Laws of the Iowa Foundation for Medical Care, as amended by this House of Delegates, and further move that the incorporators be authorized and directed to file such Articles of Incorporation and that the Directors of the Corporation be authorized and directed to adopt such By-Laws as the By-Laws of the Corporation.

Respectfully submitted,
J. F. BISHOP, M.D., *Chairman*
J. L. FATLAND, M.D.
J. E. TYRRELL, M.D.
C. D. ELLYSON, M.D.
D. J. SOLL, M.D.

The Speaker then asked whether there was any new business to come before the House. Dr. Schlaser moved that the House of Delegates approve the actions of the IMS Board of Trustees from the date of the last previous annual meeting. The motion, worded as follows, was seconded and adopted:

Resolved, That the actions of the Board of Trustees of the Iowa Medical Society from the date of the last annual meeting to the present be and hereby are ratified and confirmed.

Dr. Schlaser continued: "Mr. Speaker, I have the pleasant task of offering another motion to the House of Delegates. One could introduce this motion by a lengthy laudatory statement or report, but I simply want to say personally and on behalf of the other officers of the Society how much we have enjoyed working with our President, Dr. John Sunderbruch. I'm sure this opinion is shared by this House of Delegates, as has already been expressed." The commendatory motion by Dr. Schlaser was approved by standing applause.

Dr. Homer Wichern introduced a motion that the 1973 annual meeting of the Iowa Medical Society be held in Des Moines on April 22-25. The motion carried.

Dr. Caraway expressed the thanks to the Iowa Chapter of the American Association of Medical Assistants for serving coffee on Sunday. He also commended Mr. Taylor, executive vice president, and his fine staff.

The Speaker then announced that the organizational meeting of the Board of Trustees would be held immediately following the adjournment of the House of Delegates, and that the organizational meeting of the Judicial Council would occur at that time, too. He also informed the delegates that the installation of the new president of the IMS would occur following the formal adjournment and prior to those other two meetings.

The meeting was adjourned at 11:45 a.m.

SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

A most worthwhile mechanism for creating a memorial to a relative, associate, colleague or friend exists in the Scanlon Medical Foundation/Iowa Medical Society. The Foundation utilizes memorial gifts to carry forward its loan program which has helped more than 300 young Iowans finance their medical educations. The Foundation will be glad to send an appropriate card in the name of the donor to the family of the person honored. The tax-deductible memorial gifts should be directed to the Scanlon Medical Foundation/Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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Fourth District, Howard E. Rudersdorf, Sioux City	1973
Fifth District, Homer E. Wichern, Des Moines	1972
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Ninth District, Keith A. Garber, Corydon	1974
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Eleventh District, Hormoz Rassekh, Council Bluffs	1973
Twelfth District, Enfred E. Linder, Ogden	1974

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Jerome F. Paulson, Mason City	1972
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Leslie W. Swanson, Mason City	December 31, 1972
Herman J. Smith, Des Moines	December 31, 1972
Elmer M. Smith, Des Moines	December 31, 1973

ALTERNATE DELEGATE TO AMA

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Christian E. Radcliffe, Iowa City	December 31, 1973

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THE JOURNAL

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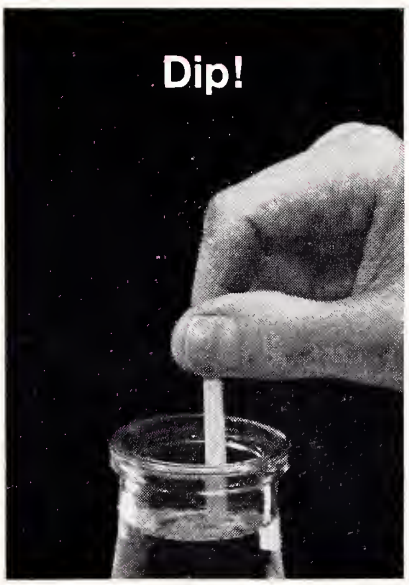

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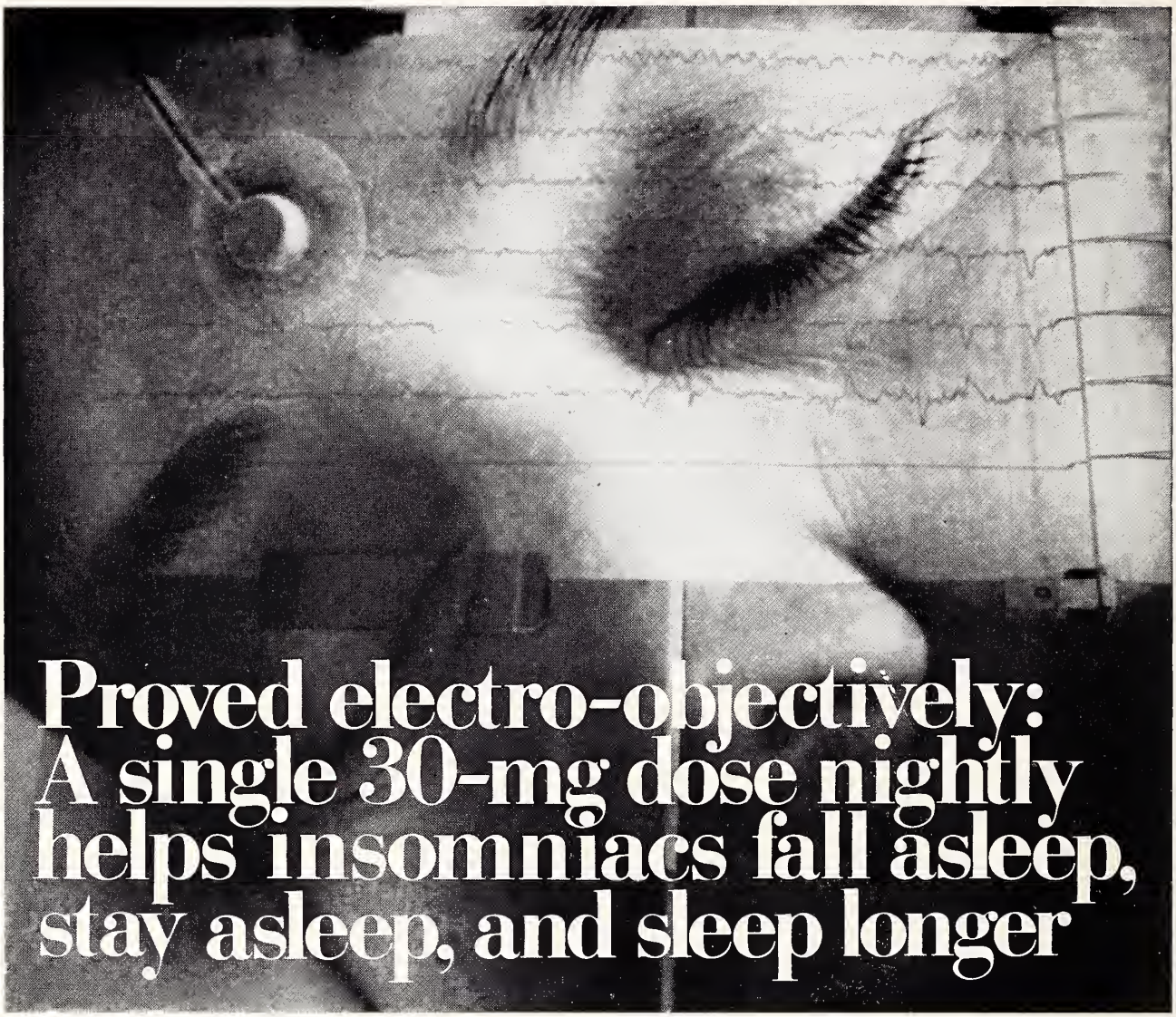

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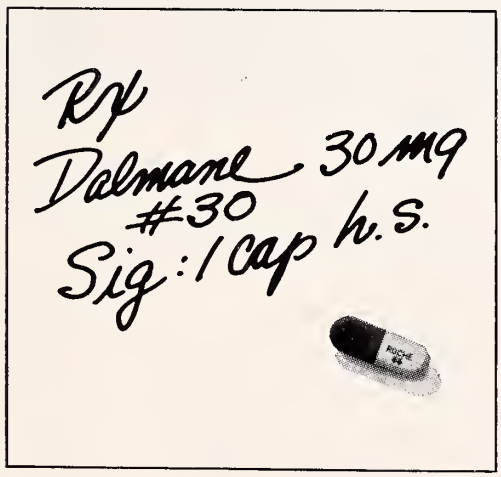
References: 1. Kales, A., *et al.*: "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.*: "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology*, Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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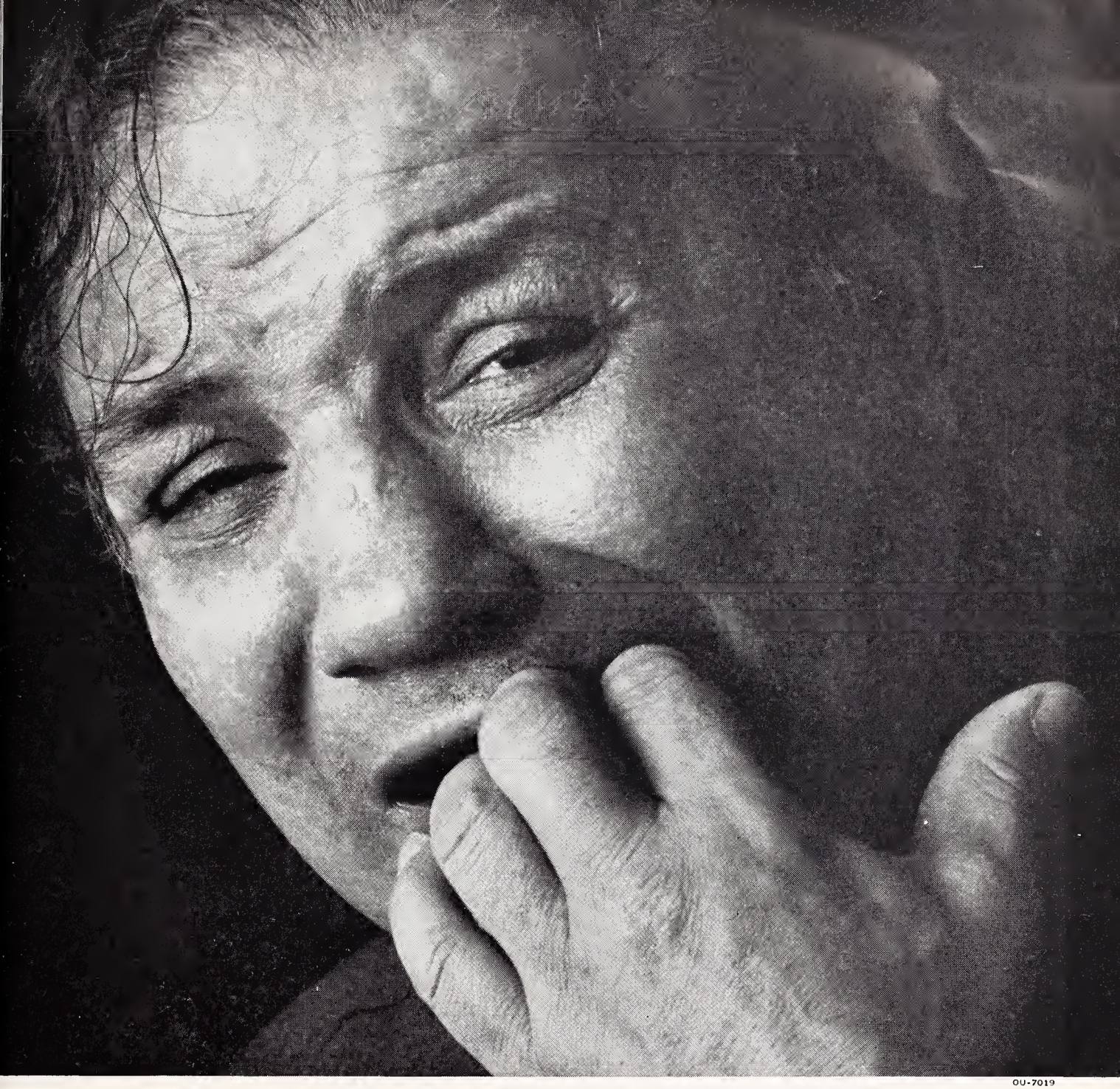

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President's Page

With the ferment of ideas occurring at all levels of medicine, civility needs to be emblazoned on every physician, resident, intern and medical student. Civility should be our whole hallmark in deliberation and in the delivery and financing of medical care.

Disparate innovative ideas and emerging concepts will produce fruitful discussion provided an organization can authoritatively speak and can interpret for physicians in the public and political arena. Fragmentation of the goals and interests of physicians is a pervasive issue in state, local and specialty organizations.

All segments of medicine require amalgamation and melding. The problems facing us today must be sorted out, mulled over and effective steps taken to implement those that are for the good of patients and the good of medicine. Researchers must not be separated from practitioners; teachers must not be isolated from those laboring amongst the sick; students must be exposed to the entire spectrum of medicine and should be provided opportunities to judge medicine not only through association with schools but through intimate and continued association with those delivering medical care and with physicians conscientiously working to solve the problems of financing and delivering medical care to the citizens of Iowa. The duty of every physician, employing the resources at his command in his particular field, is to combat fragmentation whether engaged in delivering medical care, teaching, research or administration. One organization should provide a forum for the testing of ideas and have the deliberate power to promulgate medicine's point of view.

L. J. O'Brien M.D.

President

The Iowa Family Practice Club and Family Practice in Iowa

HAROLD MOESSNER, M.D.
Amana, and
WILLIAM A. SEIDLER, JR., M.D.
Jamaica

THE IOWA FAMILY PRACTICE CLUB is an informal organization open to all medical students at The University of Iowa College of Medicine, their wives, all members of the Iowa Academy of Family Physicians and their wives. Membership is voluntary and there are no dues or fees. The Club is sponsored by the Iowa Academy of Family Physicians. Marion Laboratories, Inc., provides financial and administrative support for this organization. Mr. Pat Patterson, Director of Professional Relations for Marion Laboratories, Inc., has provided invaluable information and advice which he has gathered from visiting family practice clubs which have been established at other medical colleges. His interest and involvement have contributed a great deal to the success of the Iowa Family Practice Club.

HISTORY

The first family practice club was formed at Indiana University in 1964. It had its origin at an informal meeting between students and practicing physicians in a medical fraternity. Minnesota and then Iowa followed in establishing similar clubs through their Academies of Family Physicians. Since that time other family practice clubs have been developed in Wisconsin, Maryland, Michigan, at the University of Virginia at Charlottesville, the Medical College of Virginia at Richmond, Wayne State at Detroit, and Western Reserve in Cleveland. The University of Nebraska and Creighton in Omaha and the Univeristy of Washington in Seattle are now in the process of starting family practice clubs.

The Board of Directors of the Iowa Academy of Family Physicians approved the formation of the Iowa Family Practice Club in November, 1968. The University of Iowa College of Medicine gave its approval within the next few months, and a committee consisting of medical students from each class and family physicians from throughout Iowa was formed. The present members of the Iowa Family Practice Club Committee are:

Physicians—**W. A. Seidler, Jr., M.D., Chairman, Jamaica, L. H. Boeke, M.D., West Union, D. F. Bomkamp, M.D., Cedar Rapids, M. A. Croker, M.D., Manchester, K. A. Garber, M.D., Corydon, P. A. McLaughlin, M.D., Iowa City, R. L. Swaney, M.D., Cedar Rapids, R. B. Widmer, M.D., Winfield.**

Students—**Seniors: C. E. Driscoll and F. L. Pisney; Juniors: S. C. Johnson and K. P. Peterson; Sophomores: D. D. Gordy and W. E. Anderson; Freshmen: R. O. Haight and C. F. Walton.**

The first meeting occurred in May of 1969. During the 1969-70 school year, four meetings were held and three meetings have been held in the 1970-71 school year.

The typical meeting begins with registration at 6:30 p.m. followed by a program at 7:00 p.m. Most of the programs are presented as panel discussions so various opinions are available. A question and answer session usually concludes the formal program. After light refreshments are served, the students, doctors and the wives gather in groups for informal discussions. Subjects covered to date include:

—A Profile of Family Practice
—The Family Physician and the Hospital
—The Family Physician and the Legislature

Dr. Moessner is the current president of the Iowa Academy of Family Practice and Dr. Seidler is the immediate past-president.

—Family Practice Residency Training Programs
—Why I Selected Family Practice
—Why a Family Practice Club
—The Family Physician's Wife
—The Family Practice Department at Iowa

The meetings are in the Iowa City area but are away from The University of Iowa campus. Attendance has ranged from 80 to over 300. The February meeting has been scheduled in conjunction with the Iowa Family Practice Refresher Course and, therefore, is the best attended meeting.

GOALS

I. The first goal is to acquaint the medical students with the concept of Family Practice.

To bring not only students but also Iowa physicians up-to-date on the current status of family practice, the following information is provided and should be assimilated. Family practice was approved as the twentieth medical specialty in February of 1969 after several national commissions and committees documented the need for the training of more primary physicians.[1] This primary physician is to serve the American public as the point of entry into the health care system. He is also to provide a comprehensive and continuing health maintenance program for the patient and his family. This includes (a) evaluating the patient's total health needs, (b) providing personal medical care if possible, (c) referring the patient to other appropriate sources of medical care where needed, and (d) acting as a coordinator of the patient's health services and accepting responsibility for the patient's *total* health care. The new specialty of family practice is patient-oriented and emphasizes health maintenance and preventive medicine. Training for the new specialty involves a three-year program after graduation from medical school. This post-graduate program emphasizes the behavioral sciences, and much of the training is provided in a model family practice unit with ambulatory patients. This model family practice unit corresponds physically to a physician's office where quality medical care is provided efficiently and in pleasant surroundings. As of April 15, 1971, 59 residency training programs in family practice had been approved by the Council of Medical Education of the American Medical Association. Approximately 20 of these are located in the midwest.

As of July 1, 1970, there were 290 residents in approved family practice programs, and the number of the applicants for openings in programs beginning in July, 1971 was 4 to 1 applicants to available positions. This fact demonstrates the interest in family practice among medical students throughout the United States.

With the approval of family practice as a specialty, the American Board of Family Practice was established and the first certifying examination was given in February, 1970. Of the 2,078 physicians who wrote the examination, 1,700 passed and are now Diplomates of the American Board of Family Practice. In February, 1971, the second certifying examination was given in numerous centers throughout the country. At the present time the American Board of Family Practice is the only specialty which does not have a *Grandfather clause* and requires recertification. This recertification is required every sixth year by examination on current medical knowledge.

II. The second goal of the Iowa Family Practice Club is to complement the Department of Family Practice at The University of Iowa College of Medicine.

This new Department was approved by the faculty of the College of Medicine and the Board of Regents early in 1970. Robert E. Rakel, M.D., who comes from the University of California at Irvine and who has a national reputation in the field of family practice, is head of the new Department. Dr. Rakel assumed his new position March 1, 1971. Through the new Department, Dr. Rakel plans to expose the medical students to family practice starting in the freshman year and to continue this exposure through the remaining three years of medical school. He also hopes to establish several family practice residency programs in community hospitals throughout Iowa to provide graduate training.

Dr. Rakel's attraction to the students was apparent at the February meeting of the Iowa Family Practice Club when over 150 students came to hear him outline his plans for the new Department. This interest among the Iowa students will be nurtured both by the Iowa Family Practice Club and the Department of Family Practice at Iowa.

The graduate training programs to be estab-

lished in community hospitals are considered most important if these interested students are to receive their subsequent training in Iowa and remain in the state. Past experience has demonstrated that a majority of young doctors establish their practices near the site of their postgraduate training. The future of medical care in Iowa will depend a great deal on how well these plans can reverse the present trend toward *specialization* and *emigration* of young physicians from Iowa.

III. The third goal of the Iowa Family Practice Club is to direct the efforts of these doctors who are interested in medical education at the University Medical Center and in family practice toward the teaching of primary medical care.

In past years Iowa medical students have been constantly exposed to the specialist and sub-specialist during their formative years at the College of Medicine. The preceptorship between the junior and senior years came too late to influence the student. The Iowa Family Practice Club has given the students an opportunity to meet and mingle with family physicians in an informal situation at regular intervals from the beginning of their medical training. The Department of Family Practice will give the family physician the opportunity to become a part of the faculty at the College of Medicine and will thereby increase the students' exposure to this new specialty in medicine.

Several other developments in medical education have reinforced the increased emphasis on primary medical care: (1) the changes in the medical curriculum, (2) the demand for increased admissions to medical schools from those applicants who are qualified, and (3) the decrease in state and federal financial support to medical schools. The new curriculum at Iowa will allow for many more elective periods in which the student selects his type and area of study. Some of this elective time may be spent in community hospitals which are affiliated with the College of Medicine. In addition, the administration of the College of Medicine has provided for an elective preceptorship after the first school year and has approved the SAMA-designed MECO (Medical Education Community Orientation) Summer Program. This will give those students who have finished their freshman year a 10-week exposure to the type of medicine practiced in community hospitals throughout Iowa.

Within the past year the College of Medicine has increased its enrollment, and there are plans for further increases as soon as the new basic sciences building is completed. These increases are coming without a corresponding increase in patient-load at University Hospitals. This makes the training of students in community hospitals even more imperative. As a result, practicing physicians throughout Iowa have the opportunity to demonstrate their interest and abilities as medical educators, but this needs to be meaningful medical education in order to attract the students.

The stage is set for a major revolution in medical education in Iowa. The Iowa Family Practice Club hopes to play a large part in this revolution by exposing the students to the rewards of family practice and by supporting the developments at the College of Medicine which will emphasize primary family medicine. As Dr. James L. Dennis, Vice-President of Health Sciences at the University of Arkansas, has stated, "The challenges were never greater but neither were the opportunities. Let's stop complaining, emerge from the thicket of thin things, and do what has to be done. This is the only way to preserve the freedom of medicine and this too is *our* responsibility."[2]

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Health Exhibits at '71 State Fair

Two health education exhibits of the American Medical Association will be on display at the 1971 Iowa State Fair (August 20 to 29) under the auspices of the Iowa Health Council.

To be located in the Grandstand Building on the north side of the Grand Concourse, the exhibits are entitled "Life Begins" and "The Transparent Twins." Representatives of the Woman's Auxiliary to the IMS and members of the Society's staff will be present in the exhibit area.

IOWA MEDICAL MISCELLANY

Officers of the various medical specialty organizations active in Iowa were at IMS Headquarters July 21 for a special briefing. The meeting was arranged at the behest of Society President L. J. O'Brien, M.D. Topics covered included: legislation, the Iowa Foundation for Medical Care, Blue Shield, professional liability, services available from the IMS.

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Iowa Foundation for Medical Care membership drive was launched July 16 with a special mailing to all Iowa physicians. Mailing contained a letter of invitation from Foundation President J. H. Sunderbruch, M.D., a copy of the Foundation Articles and By-Laws and an application form. IMS members are urged to review the material carefully.

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Further consideration was given the "hold harmless" and "prior agreement" provisions in the Blue Shield UCR contract at a July 14 meeting of Society and Blue Shield officials. Also assessed were (1) techniques used to determine UCR payment levels, and (2) administrative implementation of the House-approved compartmentalization of Medicare surgical claims into one or more of five components. Blue Shield proposals in the second area will be discussed this month by the IMS Committee on Medical Review.

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The Blue Shield annual meeting occurred July 25 in Des Moines.

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College of Medicine planning of educational programs at Oakdale and Muscatine was reported to IMS and Blue Shield representatives by Dean John W. Eckstein, M.D., and other College officials at a July 14 meeting. The preliminary plans for these programs, particularly the Muscatine project, were also described to the IMS Executive Council July 21 by John C. MacQueen, M.D., Associate Dean of the College.

Governor Robert Ray has selected Paul Seebohm, M.D., Iowa City, to succeed Franklin Top, M.D., Iowa City, as a member of the State Board of Health. Paul Leehey, M.D., Independence, has been reappointed to the Board.

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The Broadlawns-Polk County Hospital Board of Trustees gave approval in July for architects to develop working drawings for construction of the Family Practice Clinic at the hospital. Funding for the 12,000 square foot clinic will come from both state and federal sources. The 1971 Iowa General Assembly authorized $175,000 for the project to be matched by federal funds. The total 1972 operating budget for Broadlawns will be 5.8 million dollars.

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Applicants for medical student loans from the Scanlon Medical Foundation/Iowa Medical Society are appearing in increasing number as the fall term approaches. College of Medicine officials have identified a total student financial need for 1971-72 of approximately $500,000; approximately $113,000 in loan funds are expected from federal sources.

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The State Department of Health has launched a rubella hemagglutination inhibition testing program. The program will be tied in with the required prenatal serological testing for syphilis and the same sera will be used to look for rubella antibodies. The program has been in operation since June. See the Department of Health section in this issue for more information.

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As part of a re-organization effort, the Social Security Administration has assigned greater responsibility for the operation of Medicare to its 10 regional offices. As a result, Blue Shield, as Iowa intermediary for Medicare Part B, will increase its contact with Kansas City and reduce its communications with Baltimore.

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The University of Missouri-Kansas City Medical School will open for business August 30. On that day, 40 students will begin a six-year program which offers the opportunity to earn both the B.A. and M.D. degrees.

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Des Moines hospitals have a reported total of 1,686 beds, excluding those at the Veterans Administration hospital. Mercy and Iowa Lutheran have bed use in excess of 90 per cent on a daily average, while Iowa Methodist is at 85 per cent. Additional hospital building will bring the number of Des Moines beds to 2,100 by fall.

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IOWA MEDICAL MISCELLANY (Continued)

At its July meeting the State Board of Health adopted health rules to cover those gatherings of 1,000 or more persons which last for 12 or more hours. The rules set minimum requirements for water supplies, toilets, washing facilities for food handlers, first aid, etc. The rules will cover events such as rock festivals.

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Ruby Cureg, M.D., has been appointed to the maternal and child health division of the State Department of Health. Dr. Cureg was assistant director of the Des Moines-Polk County Health Department at one time and more recently has been in private practice in the Philippines.

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The Institute of Gerontology at the University of Iowa is being phased out as a result of budgetary cutbacks. Its director, W. W. Morris, Ph.D., will continue in his capacity as associate dean of the College of Medicine.

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Under study by the Society at this time are the proposed rules and regulations relating to the new Iowa law which separates into seven classifications those facilities in the state which provide nursing, custodial and boarding care. The new law requires physicians to specify the level of care needed by their patients.

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Officials of the Metropolitan Health Care Foundation will meet August 18 with the Society's Committee on Medical Review to go over techniques used in developing standards and norms for health care.

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Louisa County has recently established an immunization clinic and family planning information program for low income families. A similar program for family planning is being implemented in northeastern Iowa by eight counties.

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Elizabeth Procter, M.D., a member of the State Department of Health staff for several years, was recently named Director of the Department's Division of Maternal and Child Health. She has been in charge of the Chronic Illness and Aging Service.

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The State Department of Health is attempting to ascertain more accurately the immunization status of Iowa children. In addition to its custom of querying all parents of 18-month old children about immunizations (the response to this is between 50 and 70 per cent), the Department is undertaking a special contact program in 10 selected counties among the non-responding parents.

THE DOCTOR'S BUSINESS

Group Practice Trends

LARRY E. LEAVERTON
Des Moines

Iowa physicians, and those elsewhere, are hearing, reading and thinking about current trends which some say will eventually place every physician in a group. Discussions of Medical Foundations, Health Maintenance Organizations, Prepaid Group Practice, Regional Health Programs and Professional Corporations add to this trend of thought. Interns and residents are reluctant to establish solo private practices, believing that an established practice or group has more to offer; for example, a surplus of patients, financial backing, immediate income, fully equipped facilities and easy consultation with the senior doctors. Some doctors who are contemplating changes in their practices (a new medical building, a new partnership or a new professional corporation) are wondering whether to go ahead or wait to see what develops.

At present, it would not seem necessary to join or form a group to participate in a Medical Foundation, Health Maintenance Organization or Professional Corporation.

Group practice has been hailed by some as a possible answer to rising costs and increased efficiency. Whether this is true could depend upon the efficiency of the individual doctors and the management of the group.

A point has been made that almost every physician today is in some form of combined practice. He must be, in order to survive. He is on a hospital staff. He has a reciprocal arrangement with other physicians to handle his calls on days off, weekends off and during vacations. He has consultants available. He joins with his colleagues in county, state and national medical organizations.

In Iowa we have seen increases in groups both in number and size. What are some of the reasons? Ideally, the prime reason for forming or joining a group is to combine professional resources and talents for the more effective practice of medicine. Established practices have felt the pressure of long hours and increasing numbers of patient visits. Many localities cannot attract new doctors without some type of combined facilities. Convenience to hospital facilities is more necessary. Adequate coverage is necessary and is demanded by the patients. The increasing amount of administrative work and detail is distasteful to many doctors. It is becoming more difficult to get away for continuing education or for vacations.

Claimed advantages of group practice would include more complete coverage for the patient with all physicians and facilities in one building. The physician members would have more regular hours and coverage when out of the office. More extensive equipment and better utilization of personnel is claimed. Immediate steady income with fringe benefits would appeal to the security minded doctor. Group practice is favored by the government which believes that better utilization, cost control and other controls result from this type of practice. The administration also feels that groups are more adaptable to the Health Maintenance Organizations concept which is being pushed.

While group practice is becoming increasingly popular, it is not necessarily right for every physician. If a doctor is independent and wants to run things himself he will be happier in solo practice. The larger the group, the less voice he will have in management. Many of the problems and difficulties we have seen are in the areas of practice philosophies, financial arrangements, personalities and communications. The solo practitioner who is considering joining a group should first define his needs and goals. Are there any alternatives available? Is he already practicing as efficiently as possible and working at capacity? If he practices in a building or complex with other physicians, a reciprocal coverage arrangement can be worked out. Access to consultation can be arranged.

Whether in all cases group practice is more effective or efficient is debatable. It appears that with all present plans, proposals and legislation there is still a need for both the solo practitioner and group practice in our medical community.

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Scientific Articles

Cornpicker's Pupil: Jimson Weed Mydriasis

H. STANLEY THOMPSON, M.D.
Iowa City

In 1970 the southern corn leaf blight ruined a lot of corn in southeast Iowa. In September the corn plants were already brown and dead, and the blotches of dark green visible in some fields were clumps of Jimson weed growing vigorously among the broken corn stalks[25] (Figure 1). If these fields were harvested with old tractor-mounted corn pickers, the farmers were exposed to unusual amounts of Jimson weed. A mechanical corn picker driven through such a field fills the air with dust and particles of the Jimson weed plant. A little of this dust in the conjunctival sac atropinizes the eye and may leave the pupil dilated for several days. This sort of thing has been reported in the past,[1, 2, 3, 24] and is recognized as one of the possible causes of a sudden dilated pupil with loss of accommodation.

Hardly anyone stores corn on the cob in a corn crib anymore. Most of it is picked and shelled in the field with a combine and dried artificially. The operator of the combine sits in an air-conditioned cab and is protected from the dust that he is stirring up. But "cornpicker's pupil" will still occur as long as the weed is in the field and as long as the farmer has to get out and get under his machine to clean the weeds out.

Figure 1. Jimson weed growing in Johnson County corn field.

The Jimson weed (Datura stramonium) can grow to a considerable size (six feet high is common) (Figure 2), and has large jagged dark green leaves (Figure 3). It has a rather heavy odor generally thought to be unpleasant. The flower is attractive, white or a pale purple in color, three to four inches long and trumpet shaped (Figure 4). The seed pod is a four-celled thorny capsule about an inch across which pops open when dry (Figure 5). The seeds are dark brown and wrinkled, two to three millimeters long and shaped like flat kidneys (Figure 6). The seeds are tough and

Dr. Thompson is an associate professor in the Department of Ophthalmology at The U. of I. College of Medicine.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF AUGUST, 1971.

Figure 2. (Left) Immature Jimson weed plant. Figure 3. (Right) Jimson weed leaf is large, dark green and jagged.

Figure 4. Pale, trumpet-shaped Jimson weed flower opens in evening.

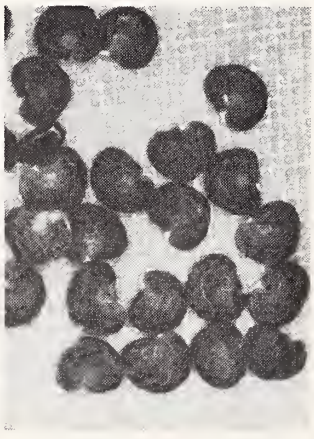

Figure 5 (Left) Seed pod has sharp spines. Dried, the mature capsule opens to release seeds. Figure 6. (Right) Seeds are wrinkled and reniform.

may survive for decades in the soil awaiting the right conditions to germinate. The entire plant from root to flower contains significant concentrations of belladonna alkaloids (hyoscyamine, hyoscine, atropine, scopolamine). Jimson weed is a solanaceous plant; a member of a remarkable family of friends and enemies which not only includes henbane, mandrake and deadly nightshade, but also the potato, tomato, red pepper, tobacco, huckleberry, eggplant and petunia.[4]

Jimson weed can be found throughout the world in vacant lots, tilled fields and barnyards and is cultivated commercially as a source of stramonium for medicinal purposes (Asthmador, Daturine).

Datura Stramonium has had many popular names, most of them referring to some feature of the plant such as the flower (angel trumpet, angel tulip) or the thorny seed pod (thornapple, Stechapfel, pomme épineuse, devil's apple). Although it was called "white man's plant" by the Algonquin Indians,[8] the plant may well have been native to the Southeastern United States. It was probably spread throughout the eastern half of the country by travelers in the late eighteenth century. The name Jimson weed is a contraction of "Jamestown weed." Early settlers near Jamestown had used the plant as a pot-herb with fatal results. The accounts of these deaths made the weed notorious. An incident which occurred in Jamestown in 1676 may have contributed to the popularity of this name. That year, a group of British soldiers under Captain John Smith, was sent to Jamestown to put down Nathaniel Bacon's rebellion against the colonial government of Virginia. Beverly's report[6] of the incident is shown in Figure 7.

Jimson weed was used as a poison in ancient times.[5, 7, 8] The seeds were powdered and mixed with wine, or the leaves were mashed and boiled down to extract the juices. This poison was used by the assassins (Hashashim: marijuana-eaters) who did the bidding of the Old Man of the Mountain in the twelfth century.[5] Reports of accidental poisoning due to Jimson weed have come from all over the world. The seeds have often been harvested unnoticed with other crops and have finally contaminated someone's food.[7] The leaves are sometimes boiled into a "tea" which is then taken as a "spring tonic."[7, 9] In parts of the

Southeastern United States tomato plants are grafted to Jimson weed roots in the hope of producing a larger tomato which is more resistant to cold. This occasionally results in a tomato which is loaded with belladonna alkaloids and large enough to send the whole family to the hospital.[10, 11] However, most of the reports of accidental poisonings concern children who have eaten the seeds. Just a few seeds can make a child flushed, hot and dry, with dilated pupils and tachycardia. They become confused, irrational, excited and hyperactive. Most of these children recover in a few days, but fatalities have been reported.[7, 12, 13, 14] An outbreak of poisoning among 30 boys in an orphanage has been described. There was pandemonium. Jimson weed was later found in the play yard.[15]

The jagged leaves of the Jimson weed have been sprayed with plastic and arranged in Christmas wreaths, and the thorny seed pods are often included in winter bouquets of dried flowers. This brings small children into contact with the plant and exposes them to the possibility of atropine poisoning.

The belladonna alkaloids have definite hallucinogenic properties and during the last few years there have been several reports of poisoning resulting from the use of these drugs as hallucinogens.[16, 17, 18, 19, 20, 21, 22] The most commonly used preparation seems to have been Asthmador, an old proprietary remedy for asthma which is made from the leaves of the Jimson weed plant. In one report, several teenagers ate Asthmador powder mixed with orange juice or applesauce. They were found incoherent and hallucinating with tachycardia and dilated pupils. After spending a day or so in a straitjacket, they recovered, remembering nothing of what had passed. Since 1969 it has not been possible to buy Asthmador in Iowa drugstores without a prescription.

A farmer working in a dusty field or barn may get something in his eye several times a week and a particle of Jimson weed dust is no more irritating to the conjunctiva than any other particle of plant origin. The dilated pupil and the blurred near vision may not be noticed until the next day and may never be associated with getting something in the eye. Many patients with atropinic mydriasis have been subjected to intensive neurosurgical work-up for a possible intracranial aneurysm. This is unnecessary; a simple office test will identify the mydriasis due to atropinic drugs.[23] One drop of 1 per cent pilocarpine will constrict any pupil unless the sphincter has been blocked by an atropine-like drug. Denervation of the sphincter (e.g. aneurysm or "Adie's tonic pupil") can only *increase* the sensitivity of the sphincter to pilocarpine. If the dilated pupil contracts less to pilocarpine than the normal pupil then it must have been dilated by an atropinic drug; that is, of course, if acute glaucoma and iris disease or injury can be ruled out.

The *James-Town* Weed (which reſembles the Thorny Apple of *Peru*, and I take to be the Plant ſo call'd) is ſuppoſed to be one of the greateſt Coolers in the World. This being an early Plant, was gather'd very young for a boil'd Salad, by ſome of the Soldiers ſent thither, to pacifie the Troubles of *Bacon*; and ſome of them eat plentifully of it, the Effect of which was a very pleaſant Comedy; for they turn'd natural Fools upon it for ſeveral Days: One would blow up a Feather in the Air; another wou'd dart Straws at it with much Fury; and another ſtark naked was ſitting up in a Corner, like a Monkey, grinning and making Mows at them; a Fourth would fondly kiſs, and paw his Companions, and ſnear in their Faces, with a Countenance more antick, than any in a *Dutch* Droll. In this frantick Condition they were confined, leſt they ſhould in their Folly deſtroy themſelves; though it was obſerved, that all their Actions were full of Innocence and good Nature. Indeed, they were not very cleanly; for they would have wallow'd in their own Excrements, if they had not been prevented. A Thouſand ſuch ſimple Tricks they play'd, and after Eleven Days, return'd to themſelves again, not remembring any thing that had paſs'd.

Figure 7. Beverly's account of Jimson weed poisoning: 1676.

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Clinical Pathological Conference

Mercy Hospital (Des Moines)

THE CASE IS that of a 46-year-old housewife. The patient was admitted to Mercy Hospital March 23, 1968. Her chief complaint was loss of memory for three months. This loss of memory was gradual and progressive. Other symptoms included loss of equilibrium and poor vision. Headaches were experienced for several months. The patient's husband noted the patient to drag her right leg.

On physical examination, slight weakness in the right upper and lower extremity was noted. The patient's speech was slurred and she demonstrated poor equilibrium. The remainder of the physical examination was unremarkable except as noted in the following.

Following admission, several consultations and procedures were performed. The opthalmologist on consultation described a normal corneal sensation, Bell's phenomenon, normal responses to optokinetic tape in all directions, no ocular dysmetria or ocular flutter, full muscle movements with no latent or manifest deviation, no nystagmus, round, regular and equal pupils that reacted briskly to light both directly and consensually, and pupils that showed prompt responsive accommodation. The visual fields showed mild generalized nonspecific constriction with nonspecific enlargement of the blind spots and no cuts, scotomata or field defects. The external eye examination was within normal limits. Following dilatation of the pupils, the discs, vessels and macula in both eyes were normal. The discs bilaterally appeared flat and only slightly ruddy. No papilledema or atrophy could be diagnosed. At this time, it was considered that there was no neuroophthalmological abnormalities. The neurosurgeon described a mild right hemiparesis, a Babinski type right plantar reflex, some astereognosis of the right hand, right central facial nerve weakness, bilateral papilledema, greater on the left than on the right, difficulty with simple arithmetic and flattened affect. It was the neurosurgeon's impression that the patient had a brain tumor.

Additional studies were performed. An EEG was described as abnormal, primarily because of delta activity in the frontal and temporal areas with definite lateralization of the left frontal area. These findings were felt to be compatible with a mid-line lesion with lateralization to the left frontal area. Angiography revealed filling of the right and left vertebrals and right and left carotids without any definitive abnormality. An incidental note indicated that on both vertebral studies, areas questionable for neovascularization were noted. These were thought to be related to the glomera. The brain scan with Technetium 99M was normal. A pneumoencephalogram revealed air contrast visualization of portions of both lateral and third ventricles. No abnormality was noted. There was an air filled structure seen on some of the AP views slightly to the right of the

Paul From, M.D., of Des Moines, is the CPC clinical discussant, and Ronald Villella, M.D., also of Des Moines, is the pathologist.

midline and thought to be a portion of the third ventricle. Echogram revealed no significant shift to the midline structures.

Laboratory studies revealed a normal CBC (hemoglobin—14.2; hematocrit—42; RBC—4,090,000; WBC—4,600 with a differential of 47 per cent segs, 51 per cent lymphs, 1 per cent eos and 1 per cent basos). The RBCs appeared normal and the platelets were adequate. The urinalysis was normal, and the VDRL non-reactive. A spinal fluid sample revealed a cell count of 94 cells, 95 per cent mononuclears and 5 per cent polymorphonuclears. The spinal fluid was clear and the total protein was 36 mg percent. The CSF was normal. Studies for viral encephalitis (including antigens for the following diseases: EEE, WEE, SLE, CEV, CUV, psittacosis, herpes, mumps viral and mumps soluble) were performed. The comparison between the acute and convalescent specimens in all instances revealed no significant rise in titer. Prior to the results of the viral studies, the consensus was the patient probably had encephalitis and it was decided to discharge her April 4, 1968 and follow her on an outpatient basis.

On May 27, 1968, she was readmitted following a seizure. The seizure was generalized with head turning to the right. The right hemiparesis was noted. The patient was somewhat stuporous. An emergency tracheostomy for respiratory distress was performed. Laboratory findings at this time were not appreciably different from the last admission. The WBC differential was 3 per cent bands, 68 per cent segs, 27 per cent lymphs, 1 per cent mono and 1 per cent basophils. The electrolytes were normal and the BUN was 9 mg. per cent. The brain scan was repeated and showed a suspicious area of increased uptake in the parietal areas on the right side. This could not be eliminated as a possible area of tumor. The angiography was repeated and again was unremarkable. An incidental IVP revealed no significant abnormalities. The pneumoencephalogram showed filling in the superior portion of the anterior horn of the left lateral ventricle. There was a slight shift of the ventricular system from the left to the right side. The findings were suggestive of a tumor in the left fronto-parietal area. Later, on June 4, brain tissue from the left frontal lobe was obtained. Following surgery, the patient improved, movement of the right arm and shoulder improved gradually and on July 1, the patient was discharged for care at home.

The patient was readmitted August 3, 1968. Her husband reported following the craniotomy she had improved gradually on the right side but approximately two weeks prior to this admission her right side became weaker. Both her expressive and receptive abilities worsened and she was unable to recognize her daughter. She became incontinent. Her affect became more flat. Her lethargy increased. A radioactive scan with Technetium 99m was repeated on August 6 and it revealed increased uptake anteriorly on the left. This was suggestive of metastatic neoplasm. On August 8, a bilateral carotid angiogram was repeated, with a questionable tilt of the septum pellucidum but with no definite evidence of tumor. A cerebrospinal fluid examination at this time revealed a cell count of 14 (13 monos and 1 PMN). The total protein was 63 per cent. A cerebrospinal fluid electrophoresis revealed a normal pattern. Serum protein electrophoresis revealed a normal finding with no evidence of globulin or protein spike. Bone marrow studies revealed normal findings. On September 19, the spinal fluid was examined for cytology. No malignant cells were identified. The patient's lethargy increased and she developed seizures. Subsequently she became unconscious. Her course continued downhill and she was treated symptomatically with no significant improvement. She expired on October 7, 1968.

CLINICAL DISCUSSION

Dr. From: The patient's history began in March of 1968. She was hospitalized for 10 days. She was then sent home to return on May 27, approximately two months later and about 5 months after the onset of her first symptoms. At this time she gave a history of having had a seizure. She was found to be stuporous. A brain scan was done and suggested some increased uptake in the left parietal area; from the previous findings we would expect her trouble to be in the left cerebral hemisphere, and this data would be compatible with clinical suspicions. Another angiogram was done and again was not definitive. A pneumoencephalogram did indicate some changes, with a shift from the left to the right, suggesting a tumor in the right central parietal area.

On June 4, she had a craniotomy with biopsy of tissue from the brain. By August 1, two months later, she was back in, complaining of increased weakness in the right side of the body. This had improved following her craniotomy, but it occurred again and became worse. She had more asthenia. She was lethargic and had been incontinent. A brain scan was repeated, and there was an increased uptake of activity anteriorly on the left. An angiogram was done, but I could not make anything out from that study from the protocol, although it wasn't quite normal. Another spinal fluid examination was performed. This time the cell count was 14 and the protein was somewhat borderline at 63 mgm. per cent. Her course was then rapidly downhill, with many seizures. She became unconscious and expired about 10 months after the onset of her symptoms, or 7 months from the time of first medical attention.

If we examine the symptom complex of headaches, vomiting, papilledema, mental changes, convulsions, bradycardia, and astereognosis, we have almost a complete set of the symptoms and findings of a brain tumor. Vomiting is not uncommon, especially in posterior fossa tumors. Papilledema, if it is present, would indicate a 90 per cent chance that the cause of the papilledema is a brain tumor. Other abnormalities can cause papilledema. These would include sinus thrombosis, hydrocephalus, brain abscess, subarachnoid hemorrhage, meningitis, and encephalitis. Papilledema is only seen about 65 to 80 per cent of the time in brain tumors, but if papilledema is present, there are 9 chances out of 10 that its cause is due to a brain tumor. Papilledema was present in this case. The mental changes that accompany brain tumor are extremely variable. Usually there is some clouding of consciousness, or yawning, or drowsiness. These patients tend to become rather stuporous and often are incontinent. About 50 per cent of the causes of convulsions seen after age 30 are due to brain tumor. This lady was between 30 and 50. After age 50, convulsions first seen are more likely due to vascular disease than tumor. This lady did have convulsions. If you have astereognosis, this would indicate possible involvement of the posterior central gyrus or parietal lobe.

Processes that one must consider in the differential diagnosis of this case would be basically those of some expanding intracranial lesion or some mass within the brain itself, such as an aneurysm, brain abscess, encephalomalacia, progressive softening of the brain in the elderly person (which is extremely difficult at times to differentiate from brain tumor), general paresis, hydrocephalus, encephalitis, or meningitis (which might be localized and manifest as a brain tumor), a localized retinitis, longitudinal sinus thrombosis, and circumscribed tuberculosis or syphilitic meningitis. Occasionally multiple sclerosis, because of its eye findings, can mimic a brain tumor.

I think this case had all of the pertinent symptomatology of a brain tumor. The course in less than a year certainly suggested brain tumor, and certainly this was a fatal disease. The findings of the neurosurgeon were not conclusive but they suggested more than anything the presence of brain tumor. There was a brain biopsy which would make one suspect that something abnormal was present in the brain. And so from all of these points, I would conclude that this case was one of a brain tumor.

Looking over the tumors which have the most relentless course, I would think that most likely this case would be a glioblastoma multiforme arising in the left cerebral hemisphere—in the frontal and parietal regions. The course simply seems a little too short for that of an astroblastoma, but this would be another possibility.

In conclusion, I think this case was primarily that of a brain tumor, and speaking from statistics, I would choose glioblastoma multiforme as the most likely type of tumor.

DISCUSSION

Question from floor: Did you mean astereognosis is indicative of brain tumor? I believe it has been recognized in other conditions. It indicates parietal lobe involvement; particularly involvement of the post-central gyrus.

Dr. From: The astereognosis I mentioned was not meant to be as a sign of brain tumor, but was a localizing sign if it were present. Beyond this, I think everything you have said is very pertinent and needs no enlarging.

Dr. Henry Decker: What did the heart sound like?

Dr. From: Unless Dr. Villella knows, I can't tell you.

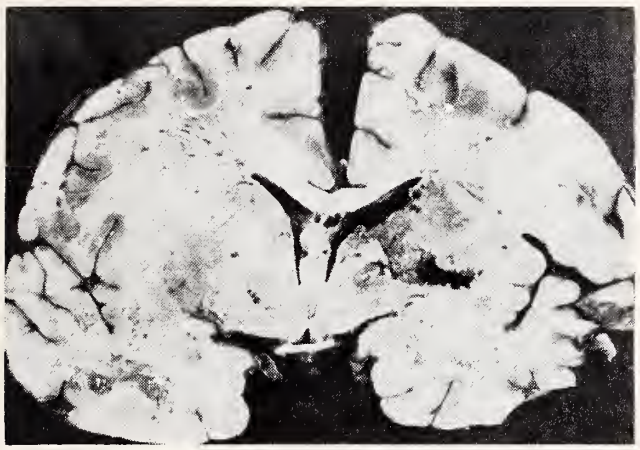

Figure 1. Gross photograph of coronal section of brain demonstrating tumor destruction.

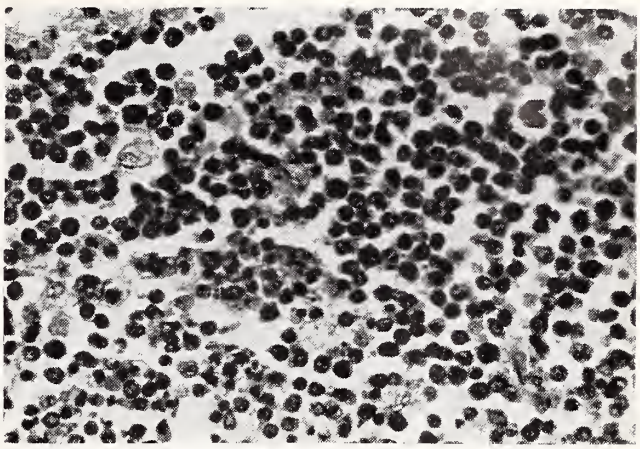

Figure 2. Photomicrograph demonstrating cellular detail of the granulocytic sarcoma (450X).

Dr. Henry Decker: The possibility of embolism must be kept in mind in cases like this one. The reason I asked about the heart is that people who have showers of emboli from the heart may at times have conditions suggestive of a brain tumor. Then you will have so-called aseptic meningitis and will have some increase in the protein.

Dr. Villella: We have no mention of any significant heart findings.

Dr. Henry Decker: They don't have any noise until the valve gets rusty.

Dr. Villella: Are there any other comments on the clinical findings? If not, we can proceed to the pathological findings.

Dr. Villella: At the time of surgery, the lesion was biopsied. A sample that represented the periphery of the lesion was taken, and two diagnoses were considered, but a definite diagnosis could not be made. They were chronic encephalitis and reticulum cell sarcoma.

At autopsy the extracranial findings included: 1) Healed rheumatic valvulitis of the mitral valve. 2) Pulmonary congestion and edema with bilateral focal areas of bronchopneumonia. 3) Chronic passive congestion of the liver, spleen, and kidneys. 4) Chronic cholecystitis and cholelithiasis. 5) Evidence of the previous craniotomy and tracheostomy.

The main findings were in the brain. It was distorted as a result of the neoplasm present (Figure 1). The tumor diffusely infiltrated the left hemisphere from the frontal lobe to the occipital lobe. The tumor was dominant and cystic in the basal ganglial area. It obstructed the left ventricle and a separate distinct focus of tumor was present in the right temporal lobe at a distance from the main mass. The tumor extended inferiorly into the pons and cerebellum and the extension was primarily paraventricular. Microscopically, the areas of tumor were densely cellular and very vascular (Figure 2). The cells varied. Many were composed of large round nuclei with dense nuclear membranes. They had prominent chromocenters and prominent nucleoli. Although most nuclei were round, some did show indentations. Small amounts of indistinct cytoplasm were noted. At the margins of the tumor, a perivascular type of tumor extension was noted (Figure 3). Occasional ball hemorrhages were noted and occasional occluded vessels could be demonstrated. There were focal areas of infarction with hemorrhage, probably secondary to compression of vessels.

After review of the clinical and autopsy findings in this unusual case, the main diagnoses considered were reticulum cell sarcoma, microglioma (which I do not distinguish from reticu-

Figure 3. Photomicrograph demonstrating perivascular mode of tumor extension (100X).

lum cell sarcoma as the British do), and granulocytic sarcoma.

The case was sent to Dr. Kenneth Earl, a neuropathologist at the Armed Forces Institute of Pathology, for consultation. After review by him and his staff, the consensus was that this case represented a Granulocytic Sarcoma.

This is the only case of this lesion (that I am aware of) that solely involves the brain. There was no contiguous cranial bone involvement and the bone marrow, spleen, liver, and other organs were free of tumor. No significant protein or peripheral blood abnormalities were demonstrable.

In the literature, granulocytic sarcoma is synonymous with chloroma. You will recall that chloroma is the green sarcomatous tumefaction commonly associated with differentiated granulocytic leukemia. However, as a soft tissue lesion, granulocytic sarcoma may precede the leukemia by several months to a year. In this case the overall duration is approximately 10 months, and there is no sign of extracranial involvement. Granulocytic sarcoma tends to occur in areas contiguous with the bones of the skull or with vertebrae and sternum. The neoplasm has also been described in the breast, the wall of the intestines, uterine cervix, thighs, arms, and other sites. Morphologically, the neoplasm is distinguished with most difficulty from reticulum cell sarcoma and from certain atypical inflammatory conditions.

Are there any comments?

Dr. Robert Jones: Dorothy Russel, in her book on nervous system tumors, discusses silver stains in distinguishing microgliomas from reticulum cell sarcoma. Did you do them?

Dr. Villella: No, since the stain to which you are referring is frequently equivocal, and since I do not distinguish between these two lesions, I didn't do them.

Doctor (unidentified): In previous cases of reticulum cell sarcoma of the brain, low CSF sugar has been noted. Would you care to comment on CSF sugar in this type of case?

Dr. Villella: Low CSF sugar has been often reported in granulocytic leukemias, so I would anticipate that it might be low in any rapidly growing neoplasm that is in contact with the CSF. The fact that this lesion was not directly bathed by CSF may explain the normal CSF sugar. It should be emphasized that when ordering CSF sugar, a simultaneous blood sugar should also be performed. This permits better diagnostic correlations. Are there any other comments? If there are no further comments, this CPC is concluded.

Diabetes Symposium in September

A two-day Symposium on Diabetes Mellitus will be presented in Des Moines September 17 and 18 under the auspices of the Iowa Methodist Hospital Internal Medicine Section. The symposium will take place in the Nursing Auditorium at Iowa Methodist Hospital and is open to all physicians and other interested health care personnel.

The Friday (September 17) program will begin with registration at 1 p.m. Afternoon speakers and topics will include:

NATURAL HISTORY OF DIABETES AND CRITERIA FOR DIAGNOSIS
Clifford Gastineau, M.D., Mayo Clinic

A CURRENT VIEW OF THE PATHOGENESIS OF DIABETES & ITS COMPLICATIONS
Sheldon Berger, M.D., Northwestern University

CURRENT CONCEPTS OF THE METABOLISM OF ADIPOSE TISSUE IN DIABETES MELLITUS
Daniel Stone, M.D., University of Nebraska

DIAGNOSIS & TREATMENT OF HYPEROSMOLAR COMA
C. Robert Meloni, M.D., Alexandria, Virginia

The Saturday program will begin at 9 a.m. and continue until 4:30 p.m. Topics and speakers are as follows:

ENDOCRINE DISORDERS ASSOCIATED WITH DIABETES
Dr. Meloni

THE USE OF INSULIN IN UNSTABLE DIABETES
Dr. Gastineau

RELATION OF AGE TO GLUCOSE TOLERANCE & THE PREVALENCE OF DIABETES
Max Miller, M.D., Case Western Reserve University

KIDNEY DISEASE IN DIABETES
Dr. Stone

USE OF ORAL DRUGS TO CONTROL DIABETES
Robert Hardin, M.D., University of Iowa
Robert Bradley, M.D., Boston, Massachusetts
Dr. Miller

DIABETIC NEUROPATHY
Leo Krall, M.D., Boston, Massachusetts

DIABETIC RETINOPATHY
Dr. Krall

DIABETIC RETINOPATHY
Dr. Bradley

THERAPY OF DIABETIC ACIDOSIS
Joseph Brown, M.D., University of Iowa

Editorials

FROM SALTED ONIONS TO CLOROX AND MILK

The treatment of the patient with severe burns has challenged the attending physician over the centuries. Paré (1510-1590), the famous French army surgeon, followed the suggestion of a peasant that the application of salted onions to the burned area provided beneficial results. Reference to this form of treatment could be found in the medical literature three centuries later. Further back in antiquity, Paracelsus (1493-1541) developed a concoction containing among other substances the fat of wild hogs and bears, red wine, angle worms and the moss from the skull of a person who had been hanged. Byzantine physicians (476-732) used "bull's gall dissolved with much water." A British surgical text of the late 17th century seemed to advocate fighting fire with fire "by the holding of a burning hot iron of fire to the part." Toward the end of the 18th century the application of ice to the burned area was suggested. In addition, until the late 18th and early 19th centuries, the practice of bleeding and purging the patient was common.

A slow change in burn therapy began about 1831 when it was noted that patients with burns had something in common with cholera victims—a depletion of sodium chloride. The administration of saline solution was instituted. By 1900 the need for replacement therapy was clear to a growing number of physicians and now it is a definite part of the burn care regimen. There remains several variations of the theme, including the precise types of fluids, the volumes indicated and the order of administration. However, the fact remains that the effective replacement of fluids is a strong deterrent to the loss of burn patients from dehydration and shock.

The treatment of the burned tissues has likewise changed from use of weird concoctions. Many and varied techniques have been promoted through the ages. Of course, we are all aware of the controversial issues regarding open or closed methods. Likewise, various substances have been used—tannic acid, furoxones, silver nitrate solution, silver sulfadiazine, and many others. Each substance was directed toward the prevention of infection and provision of good graft sites.

A year or so ago I had the pleasure of visiting the Shriners' Burn Institute in Galveston, Texas. Duane L. Larson, M.D., Chief of Staff, was very cordial and explained how the facility manages severely burned children. At that time Dr. Larson advocated the daily bathing of the patients with water and detergent, plus the addition of sodium bicarbonate to increase the osmolarity of the water to make the procedure more comfortable for the patient. Following the baths Sulfamylon® cream was applied to the burns and held in place with elasticized nylon tubular netting.

Now, according to a subsequent report, Dr. Larson is using a Clorox® solution for the daily tub baths. A 1:60 solution is prepared by adding one quart of Clorox® to 15 gallons of water. The use of the nylon netting afterwards is continued.

Milk has been suggested as a good remedy for the immediate local treatment of burns. Comfort is provided by immersing the burned area into cold milk or water. Dr. Larson uses milk in another way. The patients are given cow's milk by mouth very soon in the treatment regimen, using a feeding tube if necessary. It seems that the patients tolerate the cold milk very well, and may take as much as 2½-3½ liters per day, providing fluids as well as nourishment.

Of course, in addition to the tub baths and

Editorials continued...

the oral intake of milk the patients at the Shriners' Institute received intravenous infusions of Ringer's lactate solution in amounts to maintain urinary output between 13-25 cc. per hour, and salt-poor human albumin, 1 gm. per kg. of body weight per 24 hours ("piggy-bank" into the intravenous system). This regimen is continued during the first 48 hours and modified thereafter to comply with fluid and electrolyte requirements. No whole blood is given during the first 48 hours unless anemia or blood loss is present. Other supportive measures are utilized as indicated, and as the regimen progresses the skin grafts are made and skeletal traction is applied to minimize contractures.

INTRAVENOUS INFUSIONS

The recent recall of certain fluids used for intravenous infusion suggests that we need to re-examine the problems which face the physician in providing care to his patient. Life itself is a risk—from the moment of conception until life's candle is extinguished. We now have renewed indication that some of the procedures which may be life-saving are also potentially of great risk. The prevention of iatrogenic septicemia requires a long, hard look by our profession.

Studies have shown a real source of contamination in intravenous fluids which are administered by means of the screw-top bottle system. Experiments have shown that contamination does occur when seepage along the threads of the cap and bottle invades the crevices. Then, when the bottle is changed the same screw-top contamination of the interior of the cap persists and is ultimately flushed into the patient. Therefore, it must be concluded that this method leaves something to be desired.

Let us examine another potential source of contamination . . . the indwelling intravenous catheter. A "simple" manipulation is often done to assist in the free flow of the fluid through a stubborn system. How often have you observed the little trick of pulling back or pushing forward the catheter to facilitate the flow of the infusion? That little procedure is just asking for it! But, generally, we are lucky.

Another simple hazard presents itself when performing a "piggy-back" administration into an existing intravenous system. Certainly the ritual of swabbing the injection site with alcohol is purely hocus-pocus. Such a short contact with alcohol serves no effective purpose. If the "piggy-back" is left in place without being adequately anchored there is little doubt a degree of in-and-out motion of the needle could occur and could cause contamination.

Some steps have been taken to avoid some of these hazards. We might mention the availability of in-line filters and the preparation of intravenous fluids containing pharmaceutical additives in a laminar air-flow work area by trained personnel. In addition, it is most necessary to emphasize to nurses, intravenous technicians and physicians the hazards involved in intravenous infusions. Let us take stock of our procedures and equipment, study the potentials, and re-evaluate our techniques. Some changes are necessary to protect our patients from the hazards of iatrogenic septicemia.

IOWA FOUNDATION FOR MEDICAL CARE

The general enrollment of Iowa physicians in the new Iowa Foundation for Medical Care began July 16 with a mailing to all Society members. Within a week close to 200 physicians had filed membership applications. This early response is regarded as excellent. Personal contact regarding membership is planned to follow the mailing.

The Foundation has as its fundamental goal: *To develop, promote and encourage the distribution of quality medical services to those served at an equitable cost and in appropriate quantity.*

PICTURE IMPROVES FOR PREGNANT DIABETIC

The outcome of pregnancy in the diabetic patient continues to be uncertain and often disappointing, but improvement is being made as confirmed in a recent study by a group of physicians from the Marshfield Clinic, Marshfield, Wisconsin.

The study involved a 10-year review (1958-1967) of diabetic pregnancies at St. Joseph's Hospital in Marshfield. The results of the study were compared with a previous 20-year study covering the period from 1938 to 1957. Both studies were carried out by the same physician-hospital group, members of a local clinic. The initial study involved 91 pregnancies in 46 diabetic women; the new study included 78 pregnancies among 50 diabetic women. A comparison of the records in the two successive groups was the object of the recent article published in the February issue of the WISCONSIN MEDICAL JOURNAL.*

The most marked difference between the two groups was the reduction in neonatal deaths, from 13 per cent in the earlier study to 1.3 per cent in the recent one. As a direct result of the decrease in neonatal deaths, the survival rate for all of the diabetic pregnancies increased from 58.2 per cent to 66.7 per cent. The survival rate based on all viable pregnancies (total pregnancies less abortions) increased from 71.6 per cent to 83.9 per cent.

There was a modest increase in the incidence of abortion and stillbirth in the recent study group as compared with the earlier study. The severity of the disease and the cooperation of the patients were important factors in determining the outcome.

In their discussion the authors emphasize that insulin therapy and teamwork between obstetrician, internist and pediatrician have improved chances for a successful outcome in the diabetic pregnancy. Maternal mortality, according to several reports, is now less that 1 per cent. Fetal loss in viable pregnancy has been greatly reduced during the neonatal period by careful monitoring and management of the newborn of diabetic mothers. In the recent 10-year study there was but one neonatal death and that was in 1959.

It is pointed out that the basic treatment of diabetes during pregnancy is the same as during the non-pregnant state. Certain factors of management need special consideration:

1. **Meticulous control of diabetes and prevention of acidosis.**
2. **Prevention of excessive weight gain.**
3. **Prevention and early adequate treatment of infection.**
4. **Careful selection of the delivery date.**

One important factor in the regulation of diabetic patients is close dietary control, and this includes frequent counseling with a dietitian. Insulin administration is governed by individual needs. The more severe diabetics require a mixture of regular and intermediate-acting insulin. Snacks between meals and at bedtime are prescribed in order to prevent hypoglycemic reactions. The onset of acetonuria or infection of the respiratory or urinary tract calls for the immediate attention of the internist and perhaps hospital admission.

Some patients can be regulated on oral antidiabetic drugs without adverse effects on the mother or child. Sodium is restricted if there is excessive weight gain or edema of the legs. Visits of the patient to the clinic are at monthly intervals and usually weekly during the last 6 to 8 weeks. Choice of delivery, vaginal or caeserian, depends upon obstetrical considerations.

In the future a greater effort must be made to prevent abortions and stillbirth. In the Marshfield experience most of these unfortunate outcomes occurred in severe diabetics and in unreliable patients who were uncooperative in the management of their disease. The problem of the high incidence of congenital abnormalities in diabetic pregnancies will unquestionably continue to be a challenging problem.

The lesson to be learned from this study is that the management of the pregnant diabetic requires team effort and communication. The methods and the results of such a team effort by the Marshfield group are extremely encouraging and deserve emulation by others.—DENNIS H. KELLY, SR., M.D.

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* Lohrenz, F. N., Nikolas, T. F., and Heersma, J. R.: Diabetic pregnancy and fetal outcome. WISCONSIN MEDICAL JOURNAL, 70:79-81, 1971.

TIA OR CARDIAC ARRHYTHMIA?

A considerable interest in transient cerebral vascular events has developed in recent years, judging from the numerous articles in the neurologic and medical literature. Needless to say, the differential diagnosis of paroxysmal events has grown progressively longer. This list must now include cardiac arrhythmias.

Transient ischemic attacks (TIA) are usually brief episodes of focal neurologic deficit, but more general deficit, with clouding of consciousness and similar symptoms can be included. Walter, *et al* (ANNALS OF INTERNAL MEDICINE, 72:471-474, 1970), reported a series of 39 patients with TIA, 10 of whom were found to have a significant rate disturbance usually associated with symptoms. In 8, the cerebral symptom was general in nature, but in 2, the complaints were vertigo, tinnitus and visual blurring. Others have also noted that arrhythmia with significant rate changes may occasionally produce focal cerebral symptoms that would otherwise be attributed to local disease in the major arterial supply to the brain. Furthermore, it is well known that patients often do not note the cardiac arrhythmia, even when irregular, though, of course, the physician should inquire about this in all patients with transient cerebral events.

Because of these observations, many such patients are being monitored for cardiac arrhythmias. Continuous ECG monitoring is expensive, and some selection must be made. Those patients with general cerebral symptoms, such as loss of consciousness, and those patients with an abnormal interictal ECG form the group in whom an arrhythmia is most likely to account for the symptoms. On the Neurology Service, University Hospitals, appropriate equipment is now available in the Stroke Unit, and should permit proper evaluation of a significant number of these patients. —JOHN R. TAYLOR, M.D., *Department of Neurology, University of Iowa.*

★

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Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

A recent revision in the JCAH "Standards for Accreditation of Hospitals" provides that "the medical staff shall provide a continuing program of professional education, or give evidence of participation in such a program." The medical education program should be "designed to keep the medical staff informed of significant new developments and new skills in medicine."

Among those "new skills," it seems to me, is the ability of physicians as individuals and groups to know how they can invest their time and energy more effectively in behalf of their own professional development. New attitudes and techniques of education are appearing which promise that sort of improvement in abilities and better utilization of educational time. Increasing desire and pressure for more education for practitioners mean that the opportunities for learning, the methods and the geographical settings must increase. Hospitals and practitioners must discover how to utilize their own resources (especially patients) to maximize educational advantage.

One opportunity to help learn some of this new "technology of continuing education" will be provided in a workshop-retreat sponsored by the University of Iowa College of Medicine in Iowa City the weekend of August 13, and at Lake Okoboji the weekend of September 12. Information has been sent to all hospital administrators in Iowa and to the president of each medical staff, inviting their participation in these informal workshop sessions. We need to explore together how each community hospital can best fulfill its educational obligation, so that it in turn may best fulfill its obligation to provide the best possible medical care. In order for me to fulfill my mission at the College of Medicine, I need to know the educational needs of practitioners and hospital staffs. They in turn need to know how to take best advantage of the College of Medicine and other resources.

I hope your hospital will be represented.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

August 12	Clinical Day in Cerebrovascular Disease
August 13-15	Continuing Education in Iowa Hospitals (Workshop-Retreat at Iowa City)
August 19	Refresher Course on Cerebrovascular Disease
Sept. 1-3	Managing Common Skin Problems (One Day Workshop, Repeated)
Sept. 9	Clinical Day in Cerebrovascular Disease
Sept. 10-11	Urology Postgraduate Conference
Sept. 10-12	Continuing Education in Iowa Hospitals (Workshop-Retreat at Lake Okoboji)
Sept. 16	Clinical Day in Cerebrovascular Disease
Sept. 18	Organ Recovery Conference
Sept. 20-23	Intensive Coronary Care Management Course
Sept. 22	Quality Control in Clinical Laboratory (State Hygienic Laboratory)
Sept. 22-23	Pediatrics Postgraduate Conference
Sept. 23-24	Iowa Orthopaedic Alumni Course
Sept. 24-25	Dermatology for the Dermatologist
Sept. 24-25	Anesthesiology for Postgraduate Conference
Sept. 24-25	Physical Therapy Management of Childhood and Adolescent Disease

Society Meetings to Be Held in Conjunction With Postgraduate Courses:

Sept. 10-11	Iowa Urological Society
Sept. 22-23	Iowa Chapter of American Academy of Pediatrics
Sept. 24-25	Iowa Society of Anesthesiologists
Sept. 24-25	Iowa Dermatological Society

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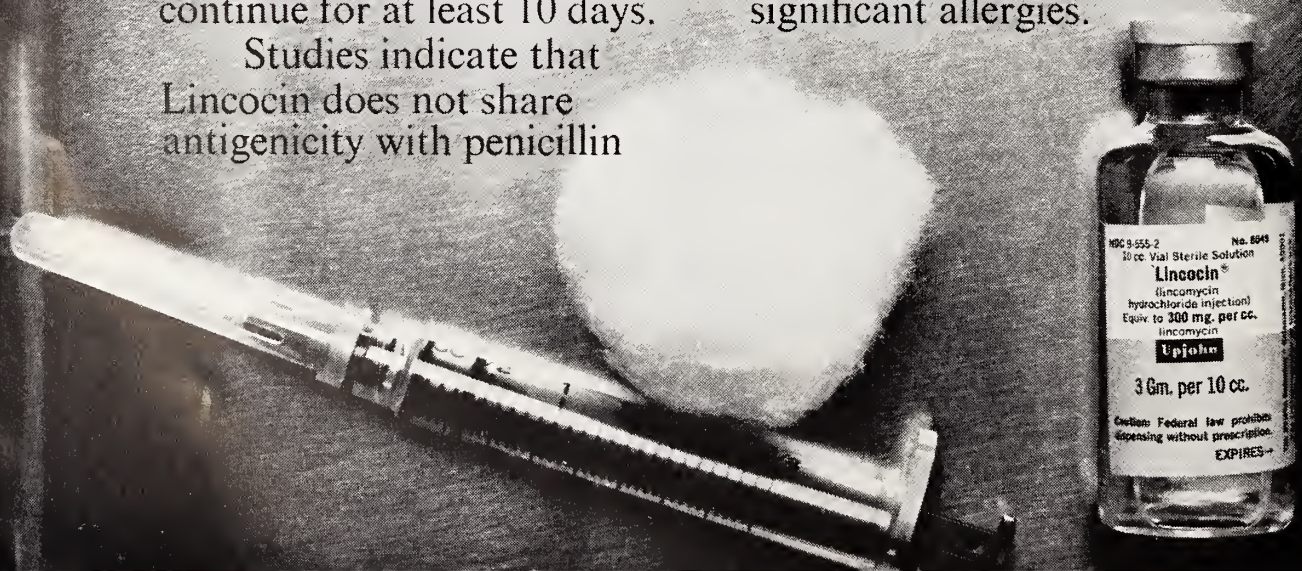
(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

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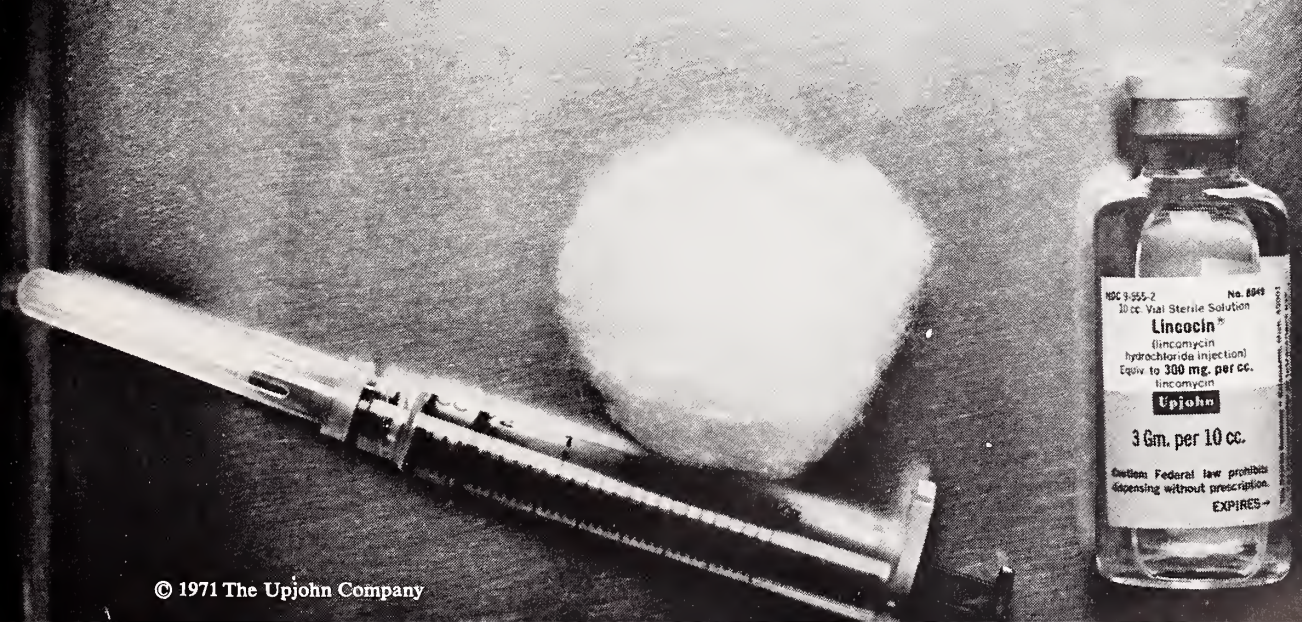
Lincocin®

(lincomycin hydrochloride, Upjohn)



© 1971 The Upjohn Company

Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.

Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

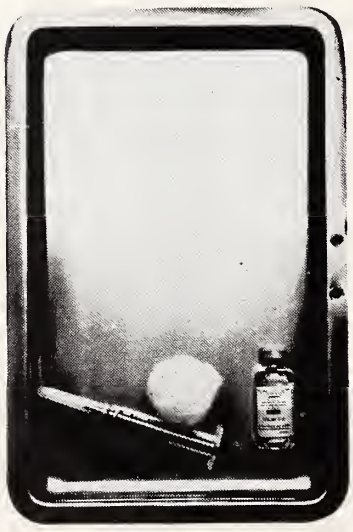
Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

For additional product information, consult the package insert or see your Upjohn representative.

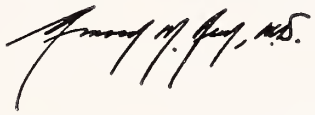
JA71-1203 MED B-5-SR (KZL-6)

The Upjohn Company
Kalamazoo
Michigan 49001

Upjohn



STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Rubella Hemagglutination Inhibition Testing Program

A NEW SERVICE TO PHYSICIANS

A Rubella Hemagglutination Inhibition Testing Program has been instituted by the Iowa State Department of Health and the State Hygienic Laboratory as a further effort to control rubella and the "rubella syndrome." This will be an automatic testing program for rubella antibodies and will be conducted on sera submitted to the State Hygienic Laboratory for prenatal serological tests for syphilis. The prenatal STS is required by Iowa law. Physicians will be provided reports of these two tests of value to their patients.

PURPOSE OF PROGRAM

The purpose of the Rubella Hemagglutination Inhibition (HAI) testing is to identify gravid females susceptible to rubella. Between 12 and 14 per cent of women of childbearing age are estimated to be susceptible to rubella. This estimate is based on a study of several thousand sera of women of childbearing age in Iowa. There are approximately 6,000 to 7,000 rubella-susceptible women delivered in Iowa each year.

The Rubella HAI testing program will identify this segment of the population. This identification will be made early in the pregnancy, so it will be impossible to alter the immune status of this woman until after her delivery. However, the period following her delivery is an ideal time to provide rubella immunization. She is not then pregnant and, with proper medical assistance, she will not become pregnant for the required 60 to 90 days following immunization.

The teratogenic effects of rubella virus are generally recognized. It is this effect of the virus that is most feared in the natural infection with the rubella. While the vaccine rubella virus is attenuated, the possibility still exists that teratogenic effects may result from its administration. This is the reason for cautious administration of the virus to women of childbearing age. There are other undesirable side effects of the vaccine virus in adult women. These include transient arthralgias and arthritides which may occur some days after the administration of the immunization. These undesirable side effects, while painful and discomforting at the time, are self-limited and disappear without residual after a few days.

METHOD OF PROGRAM

The State Hygienic Laboratory conducts the standard CDC Rubella Hemagglutination Inhibition test. This involves the removal of nonspecific inhibitors from the sera to be tested. Any hemagglutinins present in the serum are removed by treatment with chick erythrocytes. Rubella antigen is then added to the treated serum and incubated. Following this a suspension of chick erythrocytes is added to the serum-virus mixture and the mixture reincubated. Each test run is subjected to the necessary controls to assure accurate results.

INTERPRETATION OF HAI TESTING

A 1:8 dilution is the lowest dilution of serum tested in this program. A resulting titer of 1:8 or greater therefore indicates detectable antibody is present in the maternal serum. The serum donor is considered immune to rubella. If no antibody to rubella is detected in this test in the 1:8 dilution, the donor should be considered as susceptible to rubella. It is the consensus that if the maternal serum contains antibodies to rubella, that no risk exists from rubella for the fetus which this patient is then carrying or in any future pregnancy. If the subject is susceptible to rubella, a certain rubella risk does exist during the current pregnancy. No attempt should be made to alter her immune status until after her delivery because of the possible teratogenic effects of the vaccine virus.

HAI RESULTS AND SUBSEQUENT ACTIONS

Prenatal specimens submitted to the State Hygienic Laboratory will automatically be subjected to the Rubella HAI testing. If the patient is found to be immune by the detection of a titer of 1:8 or greater, the results will be reported to the physician named on the "SEROLOGIC EXAMINATION" form (Figure 1). Those subjects in whose sera no detectable rubella HAI antibody is

STATE HYGIENIC LABORATORY
THE UNIVERSITY OF IOWA
MEDICAL LABORATORIES BUILDING
IOWA CITY, IOWA 52240

Please print with BLACK MEDIUM SOFT lead pencil only

Serologic Examination

Patient _____ Age ____ Sex ____ Race ____

Address _____, IOWA

Physician (Name and Address)

Dr. _____

_____, Iowa

Zip Code _____

PLEASE PRINT PLAINLY

* Reported by State Hygienic Laboratory or Other Laboratory

(To be filled in by Physician)

Blood ◯ Spinal Fluid ◯

Purpose for which specimen taken:

Syphilis clinically suspected ◯

Specimen No. ① ② ③ ◯

Last serologic result*

VDRL _____

FTA _____

Treated ◯

Other ◯

Prenatal ◯

MARRIAGE ◯

Syphilis Serology Report

	Reactive Titer	Weakly Reactive	Non-Reactive	Insufficient for Test
VDRL				
FTA				

◯ Unsatisfactory

◯ Broken

THIS SPECIMEN HAS ALSO BEEN TESTED FOR RUBELLA ANTIBODY. AN HI TITER OF 1:8 OR GREATER WAS FOUND INDICATING IMMUNITY TO RUBELLA. EXACT TITER MAY BE OBTAINED UPON REQUEST.

LAB NO.

W. J. Hausler, Jr. Ph.D.
Director

1301

Figure 1

STATE HYGIENIC LABORATORY
THE UNIVERSITY OF IOWA
MEDICAL LABORATORIES BUILDING
IOWA CITY, IOWA 52240

Please print with BLACK MEDIUM SOFT lead pencil only

RUBELLA HI TEST

Patient _____ Age _____ Sex _____

Address _____, IOWA

Physician (Name and Address)

Dr. _____

_____, Iowa

Zip Code _____

Date of onset _____

Date of 1st Spec. | Date of 2nd Spec.

Lab. No. 1st Spec.

SCREEN FOR IMMUNE STATUS ☐
Date Patient Had Rubella Vaccine _____
Patient Has NOT Received Rubella Vaccine ☐
TEST FOR SUSPECTED RUBELLA ☐
Collect 1st Serum As Soon As Rubella Is Suspected.
Collect 2nd Serum 10-14 Days After Onset Of Rash.

Please DO NOT write below

Laboratory Report

SCREEN
☐ < 1:8
☐ 1:8
☐ 1:16
☐ > 1:32
☐ _____

CLINICAL
1st Specimen _____
2nd Specimen _____

Date Received _____

Date Reported _____

LAB NO.

W. J. Hausler, Jr., Ph D.
Director

9-70

2084

Figure 2

found will be reported on a special "RUBELLA HAI TEST" form (Figure 2) with the information that a titer of less than 1:8 was detectable. With this report will be an information sheet (Figure 3) and a postpaid reply card (Figure 4). The reply card is to be used to inform the State Health Department of the course of action chosen by the attending physician for this susceptible patient. The reply card should be retained in the patient's records until after her delivery, then the physician should report to the Department whether the patient has been immunized or, if she has not, the reasons why the election was made not to administer the vaccine. These reasons include (1) the physician's belief that the risk of undesirable complications may outweigh the benefit to be derived, (2) the patient may refuse the immunization, or (3) the physician may be unable to assure himself the patient will cooperate in not becoming pregnant for 60 to 90 days following immunization. There may be other reasons for not

EXPLANATION OF RUBELLA HEMAGGLUTINATION INHIBITION (HAI) TEST AND REPORTING:

Immunity to Rubella on the part of the mother is believed to provide passive natural antibodies to the fetus sufficient to protect against intra-uterine infection and, hence, virus-induced damage to the fetus.

Immunity to Rubella reported herewith is based on hemagglutination inhibition in a titer of 1:8 or greater. The 1:8 dilution is the lowest dilution used. Absence of hemagglutination inhibition in a dilution of 1:8 is considered and reported as susceptibility to Rubella.

PURPOSES OF THIS REPORT:

This report informs you whether your patient is immune or susceptible to Rubella. If she is immune, no risk exists from Rubella for the fetus she is presently carrying or in any future pregnancy. If she is susceptible, a Rubella risk does exist during the present pregnancy. NO ATTEMPT SHOULD BE MADE TO ALTER HER IMMUNE STATUS DURING THIS PREGNANCY. Soon after she is delivered she may be immunized against Rubella.

CONTRAINDICATIONS TO RUBELLA IMMUNIZATION:

1. DO NOT IMMUNIZE A PREGNANT WOMAN.
2. DO NOT IMMUNIZE A WOMAN OF CHILD-BEARING AGE IF YOU CAN NOT BE REASONABLY ASSURED THAT SHE WILL NOT BECOME PREGNANT FOR 60 DAYS FOLLOWING IMMUNIZATION.

PRECAUTIONS:

Adult women frequently develop self-limited arthralgia or arthritis beginning 2 to 4 weeks after rubella immunization. Patients should be so informed.

COURSES OF ACTION:

The immediate puerperium is an ideal time to immunize a woman of child-bearing age against Rubella. She is not then pregnant. Reliable techniques are available for prescription to enable her to remain non-pregnant for 60 days.

You may then wish to do one of the following:

1. IMMUNIZE YOUR PATIENT AGAINST RUBELLA DURING HER IMMEDIATE PUERPERIUM AND PRESCRIBE AN APPROPRIATE COUNTRACEPTIVE REGIME WITH THE AGREEMENT THAT SHE WILL USE IT FOR AT LEAST 60 DAYS.

2. NOT IMMUNIZE YOUR PATIENT BECAUSE:

a. she refuses.
b. you consider the possible arthralgia as contraindicative in her case.
c. you can not be reasonably assured that she will not become pregnant within 60 days following immunization.

We ask your cooperation in informing us which course of action you follow with this patient. A reply card is provided to transmit this information. Compilation of these data will permit an assessment of the value of the HAI program.

IOWA STATE HEALTH DEPARTMENT
CPA-67610 6/70

JUNE 1, 1971

Figure 3

The information below concerns the rubella susceptible patient with laboratory number _____.

1. _____ I have immunized this patient.

2. I have not immunized this patient because:

a. _____ She refused.
b. _____ Possible side effects contraindicative.
c. _____ Could not be relied upon to cooperate in contraception agreement.
d. Other _____

_____

Figure 4

immunizing the patient and specific space is left on the reply card for the physician to so indicate.

EVALUATION OF THE PROGRAM

By Departmental analysis of the reply cards the value of this program can be assessed. If it is found that few or no women are being immunized after delivery, there is little value in identifying this susceptible segment of the population. In this case the program can be terminated and the cost can be allocated to other purposes. Funding for this program is through a grant from the U. S. Public Health Service. The program is a natural sequence of the efforts made to minimize the effect of rubella. During the past two years more than one-half million Iowa children have been immunized against rubella in mass clinics. These mass clinics included children only in the age group from one to twelve years. Since these ages represent the largest reservoir of susceptibles in the population, it is anticipated that fewer cases of rubella will occur and the number of immunes will be high enough to prevent large spread epidemics. Good as this program was, it left the susceptible adult female still susceptible. The identification of this segment of the population will permit immunization of these high-risk women at a time when they can acquire immunity without any danger to a fetus.

PHYSICIAN COOPERATION

Only with the cooperation of practicing physicians can this program be worthwhile and successful. Should a patient be identified as susceptible and later acquire symptoms that appear to be rubella, the fact of rubella infection can be proven by an additional HAI test showing conversion from susceptible to immune. Identification of the susceptible will suggest the need for immunization following delivery. With this the threat of rubella infections during future pregnancies will be avoided. We hope by building up a sufficient number of immunes in the adult female population that we can prevent any repetition of the serious effects that followed the epidemic of rubella in 1964. We are now seeing the effects of that epidemic in the very large number of abnormal children who are applying for admission to the Iowa School for the Deaf and other special education facilities throughout the state. The prevention of teratogenic effects of rubella by the simple, reasonably safe and inexpensive method of immunization will more than pay for itself by the reduction of the cost of special education and care for the malformed children resulting from inter-uterine rubella infection. The cooperation of the physicians in Iowa is earnestly solicited to make this program work.

Morbidity Report for Month of June 1971

Diseases	June 1971	1971 to Date	1970 to Date	Most June Cases Reported From These Counties
Brucellosis	1	7	23	Dubuque
Chickenpox	521	5310	4068	Dubuque, Polk
Conjunctivitis	38	346	207	Audubon, Black Hawk
Gastrointestinal viral infection	128	5142	173	Hancock, Johnson
German measles	99	652	1983	Polk
Gonorrhea	605	2597	2539	Black Hawk, Linn, Polk
Histoplasmosis	3	11	6	Johnson, Linn, Polk
Impetigo	8	206	270	Polk
Infectious hepatitis	28	167	187	Scott
Infectious mononucleosis	69	714	339	Johnson
Lymphocytic choriomeningitis	1	1	0	Black Hawk
Malaria, imported				
P. falciparum	1*	2	3	Warren
P. vivax	5	21	6	Humboldt, Keokuk, Linn, Van Buren, Wapello
Measles	233	2198	972	Black Hawk
Meningitis				
H. influenza	2	5	4	Dubuque, Scott
Meningococcal	1	9	10	Scott
Mumps	182	2848	2256	Dubuque
Pneumonia	54	490	519	Scott
Rabies in animals	17	136	46	Scattered
Rheumatic fever	4	39	36	Cerro Gordo, Emmet, Poweshiek, Scott
Ringworm, body	7	78	128	Dubuque
Salmonellosis				
S. derby	1	5	0	Black Hawk
S. enteritidis	2	5	2	Linn, Webster
S. muenchen	1	2	1	Linn
S. oranienburg	1	3	2	Dubuque
S. paratyphi B	1	3	2	Story
S. typhimurium	6	14	13	Polk
Group B	2	2	4	Clay, Scott
Group C	1	2	1	Scott
Shigellosis				
S. sonnei	11	37	38	Scott
Streptococcal infections	411	4272	4096	Johnson
Syphilis	66	323	278	Black Hawk, Polk
Tuberculosis, active	5	66	70	Black Hawk, Woodbury
Whooping cough	3	17	14	Lee, Woodbury

* Delayed

American Association of Medical Assistants

State of Iowa, Inc.

Fifteenth Annual Convention Highlights

James F. Bishop, M.D., of Davenport, was made an honorary member of the American Association of Medical Assistants at the May state convention in Mason City. Dr. Bishop was instrumental in forming the Scott County Chapter of Medical Assistants. He has served either as chairman or as a member of the Advisory Board for the Scott County Chapter for all but one of the past 13 years.

Dr. Bishop has been chairman of the Medical Assistants Advisory Board the past two years and he has just been appointed to a third term. He has attended not only local and state meetings but also attended our 1970 national convention in Des Moines where he presented Iowa's candidate for national office. He has encouraged a closer relationship with the Woman's Auxiliary to Iowa Medical Society; Mrs. Bishop was the first Auxiliary president to attend our annual convention.

Marian Little of Cedar Rapids was also named to honorary membership. Marian played an important role in organizing the state's medical assistants and was the first Iowa president. She was chairman of last year's national convention in Des Moines. Special recognition was also paid to Lucille Holmes of Des Moines for her fine job as co-chairman for the national convention.

* * *

Much interest was shown in the Mini-Test given at the convention. Mrs. Ethel Haase, CMA, South Holland, Illinois, explained "certification" and what it means to the medical assistant. Passing the certification examination is an accomplishment which gives the medical assistant confidence and assures her employer of her capabilities. The certification test is given each June at various centers in the United States. Assisting with the convention Mini-Test was Mrs. Phyllis Pederson, CMA, Lake Mills, who is a medical assistant for Drs. Haugland and Brainerd. The Mini-Test touches on the areas covered in the certification test and passing it encourages one to take the certification examination. Two sections are included in the Mini-Test; you may take either the administrative or clinical section. At the Mason City convention, 30 took the administrative examination and 7 the clinical examination. Ten Iowa girls sat for the CMA examination in Iowa City June 25 and 26.

Warren Wulfekuhler, M.D., of Mason City, spoke at the convention about his experiences with the Navajo Indians at Granada, Arizona, at the hospital sponsored by the "HOPE" organization. Here Indians from the reservation are trained in the medical field and come for medical care.

"Hypnosis" as related to medical practice was demonstrated by H. J. Roddy, M.D., a Mason City obstetrician. He commented on the success with hypnosis in obstetrics and dentistry in reducing the fear of pain. He said the time involved in hypnosis does not make it conducive to everyday usage.

The election and installation of new officers occurred on Saturday. Mrs. Marjorie Snyder of Anamosa assumed the office of president. Mrs. Marcine Sanders of Davenport was chosen president-elect; Mrs. Sally Gesink, Sioux City, vice president; Mrs. Jean Gold, Davenport, was reelected secretary, and Miss Phyllis Weatherman, Mason City was elected treasurer. Mrs. Barb Smith of Cedar Rapids was appointed parliamentarian and historian. Mrs. Wilma Heller of Newhall was named corresponding secretary.

Donald "Red" Blanchard of Chicago entertained at the Saturday banquet. He was ably introduced by Edwin Kennedy, M.D., Mason City urologist; both men elicited much laughter.

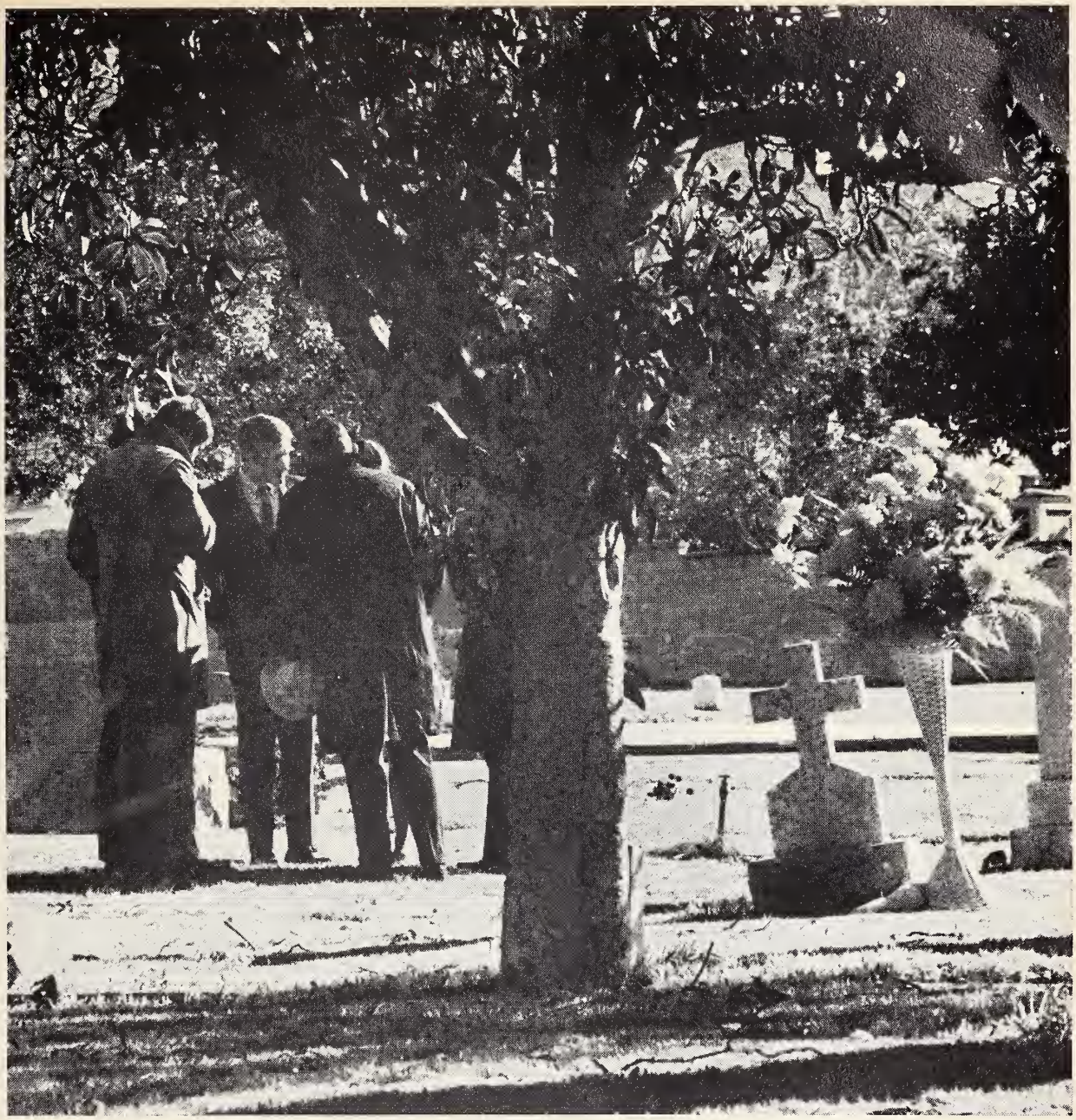
Mr. William Otterman, Mason City physiotherapist, spoke Sunday about the project "Handicap Village." Handicap Village is the first facility of its kind in the United States to provide noninstitutional homes for the adult physically and mentally handicapped who require assistance in their daily living. The facility is located near Clear Lake. The first phase of construction will include a crafts center, offices, snack bar and storage areas to provide for 70 Village residents. The first two residential units have just been completed and will house 32 residents.

Mrs. F. E. McDonald, pubic relations worker at Mercy Hospital in Mason City, spoke Sunday on the "Magic of Doors." She described the various doors in life, such as the door of life, jobs, friendship, etc.

A clever style show skit was presented by the Cerro Gordo County Woman's Medical Auxiliary at the Sunday luncheon, and the O. K. Singers of Mason City also entertained.

The weather was beautiful for the convention. There were 101 registrations. Next year the convention will be held at Cedar Rapids. It is hoped each physician will encourage his medical assistant to attend these annual conventions; the fresh ideas gained will help office efficiency.

TENORA MEYER



Drunk drivers bring families together.

In hospital rooms and at funerals.

Because that's where the drunk driver's victims wind up.
Drunk drivers are involved in at least 25,000 deaths and 800,000 crashes every year.

And what can you do?

Remember, the drunk driver, the abusive drinker, the problem drinker may be sick and need your help.

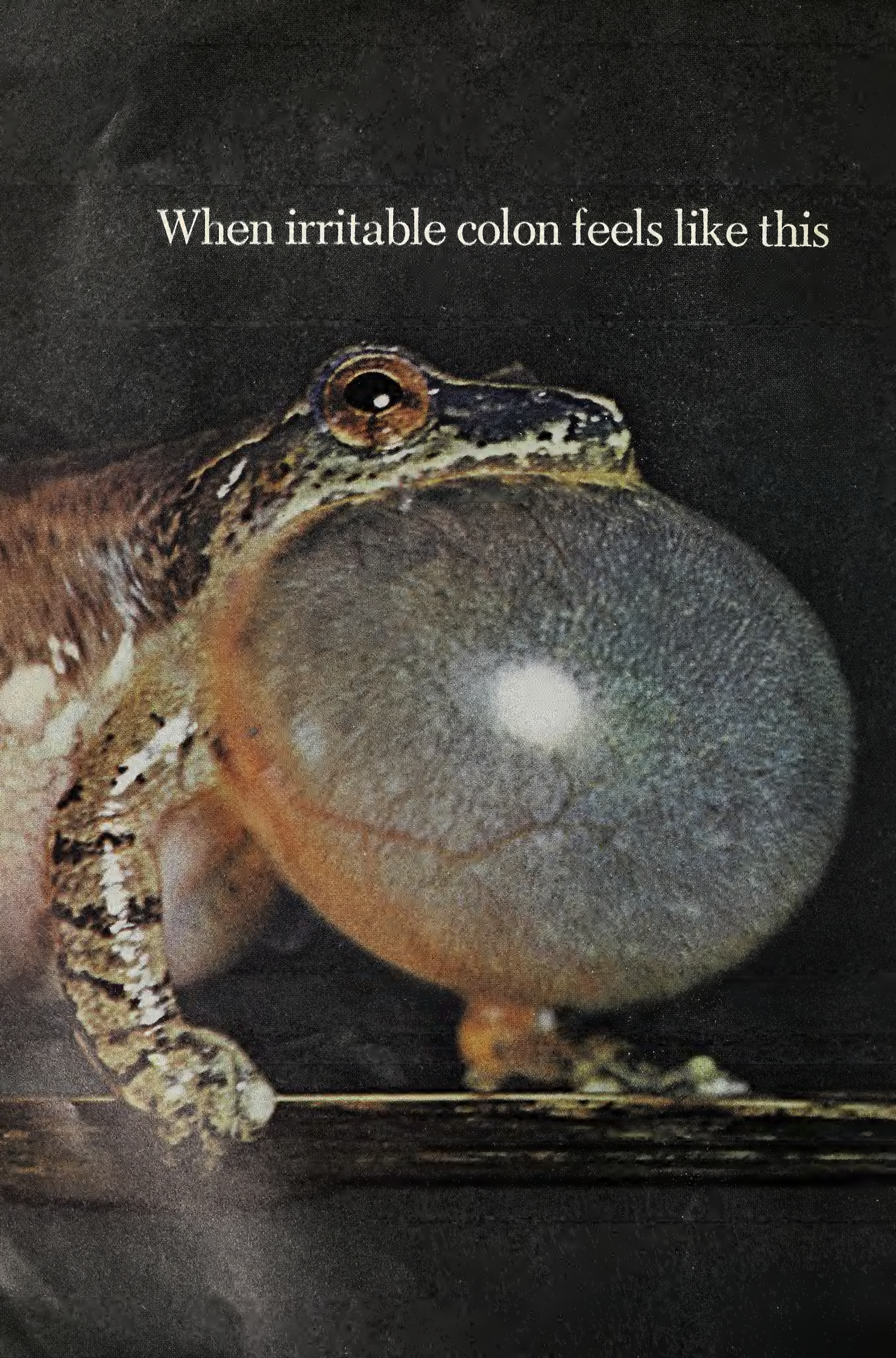
The first thing you can do is get him off the road. For his sake and yours.

Do something. Write the National Safety Council, Dept. A, 425 North Michigan Ave., Chicago, Illinois, 60611. And your voice will be heard.

Scream Bloody Murder.

Advertising contributed for the public good.

When irritable colon feels like this



...in the presence of spasm or hypermotility, gas distension and discomfort, **KINESED®** provides more complete relief:

- ☐ **belladonna alkaloids—for the hyperactive bowel**
- ☐ **simethicone—for accompanying distension and pain due to gas**
- ☐ **phenobarbital—for associated anxiety and tension**

Composition: Each chewable, fruit-flavored, scored tablet contains: 16 mg. phenobarbital (warning: may be habit-forming); 0.1 mg. hyoscyamine sulfate; 0.02 mg. atropine sulfate; 0.007 mg. scopolamine hydrobromide; 40 mg. simethicone.
Contraindications: Hypersensitivity to barbiturates or belladonna alkaloids, glaucoma, advanced renal or hepatic disease.
Precautions: Administer with caution to patients with incipient glaucoma, bladder neck obstruction or urinary bladder atony. Prolonged use of barbiturates may be habit-forming.
Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.
Dosage: Adults: One or two tablets three or four times daily. Dosage can be adjusted depending on diagnosis and severity of symptoms. Children 2 to 12 years: One half or one tablet three or four times daily. Tablets may be chewed or swallowed with liquids.

STUART PHARMACEUTICALS | Pasadena, California 91109 | Division of ATLAS CHEMICAL INDUSTRIES, INC.

(from the Greek **kinetikos,**
to move,
and the Latin **sedatus,**
to calm)

KINESED®

antispasmodic/sedative/antiflatulent

Spring peeper (tree frog, *Hyla crucifer*): this small amphibian can expand its throat membrane with air until it is twice the size of its head.

Woman's Auxiliary News

Highlights of the Annual Meeting

Serving People Everywhere Begins With Serving Someone Somewhere was chosen by our immediate past-president, Mrs. Leland Prewitt as the theme for Iowa's 42nd Annual Auxiliary Meeting in April.

Each of the guest speakers reflected this idea of service to others: Dr. Eckstein in his dedication to quality and quantity education of medical students; Mr. Wheeler in his desire for effective pollution control; Mrs. Westfall in improving life in Yucatan; and Lela Mae Young in promoting the work of the Auxiliary at the national level.

Through these "experts in their field" the 1970-71 president effectively, though subtly, made the point that the Auxiliary can *begin to serve someone somewhere.*

POLLUTION

Mr. Elmer P. Wheeler, the manager of environmental health for Monsanto Company, has worked in this field for 30 years. He convinced his listeners that *pollution is everybody's business.*

"A few years ago," Mr. Wheeler said, "pollution was defined as too much waste—airborne or liquid—discharged or disposed of in such a fashion that nature could not accommodate it. Early pollution abatement legislation recognized that one important use of our natural resources—the air we breathe and the streams of our great land—was for the disposal of man's waste.

"Political and sociological awareness," he continued, "of the abuse of the cleansing capacity of our environment and resources has forced a change in definition. The assumption that nature would take care of the problem and the increase in population have contributed to the magnitude of the conditions we face today.

"Seven million automobiles a year accumulate in a miserable and unsightly manner, 140 million tons of pollutants are dumped into the air we breathe and the discharge of 350 million tons of solid waste material and trash and the volumes of agricultural and industrial and municipal liquid wastes have overwhelmed the cleansing capacities of air and water. Nature can NO LONGER clean up the environment for us!"

THE COLLEGE OF MEDICINE

Past operations and future plans for the College were thoroughly discussed by John Eckstein, M.D., Dean of the University of Iowa College of Medicine. Of particular interest to the Auxiliary was his statement regarding the gradual increase in size of the entering classes. By 1972 the freshman class will have 175 members. Additionally, each year 15 transfer students will be admitted.

The Dean advised that Iowa is ninth in the nation in the production of medical school graduates per 100,000 population. However, Iowa loses 75 per cent of its graduates to other states because doctors tend to practice where they take their advanced training. This trend should reverse itself soon, for, according to Dr. Eckstein, it now appears doctors want to return to the Midwest.

Dr. Eckstein estimated that "it costs approximately $9-10,000 per year to educate a medical student." Of that only $870 (in-state) or $1600 (out-of-state) is paid in tuition by the student himself. Since Iowa finances only 25 per cent of the College's operating costs and gets 35 per cent of the graduating class to practice in Iowa, Iowa has a good return on its medical investment dollar. "Currently," the Dean stated, "65-75 per cent of the medical students need financial help."

The MECO Project, a cooperative educational program for freshmen and sophomore medical students to work in Iowa hospitals, was discussed. The new program of the Family Practice Department with internship and residency programs is being phased into the medical curriculum.

YUCATAN

The slides and running dialogue about Yucatan given by Mrs. R. William Westfall left no doubt whatever in the minds of the Auxiliary guests and delegates of the need for help in Yucatan.

Briefly, because Yucatan is situated on rock, the need for water, sanitation, medical and dental care is great. Poverty is rampant because the national product, henaca, which is used in making rope, has been replaced in the marketplace by nylon and synthetics.

The efforts of the present volunteers in Yucatan, many of whom are dedicated Iowans, are directed toward developing agricultural and irrigation methods to overcome the natural disadvantages of the land. Educational programs to develop the skills of the people have begun and are already showing good results.

Past-Presidents' Breakfast

Traditionally, the Past-Presidents' Breakfast is at 7:30 a.m. the opening day of the convention with the immediate past-president in charge. Yucatan dominated this year's scene and emphasized the Auxiliary's interest in this country and the help program being carried on through the Volunteer Partners of the American Alliance.

The Chairman, Mrs. Daniel Coughlan, appeared in native Yucatan dress and explained that pineapple and orchid plants were to be placed on the speakers table at the opening session of the House of Delegates. Native fruits were used as centerpieces and included on the menu. Also used were hemp placemats from Yucatan as well as favors made from pods in the shape of a bird with tiny figurines inside. An orchid in a china nut cup was at each place.

Slides of Yucatan were shown.

AMA-ERF Funds to College

A check for $10,369.12 has been presented to The U. of I. College of Medicine for use in any manner determined to be in the best interest of the school. The check was presented to the Dean of the Medical College at the IMS Annual Meeting in April.

In a letter to John W. Eckstein, M.D., Dean of The University of Iowa College of Medicine, John M. Chenault, M.D., President of the AMA-ERF, mentioned in the past 11 years physicians have contributed $142,862 through AMA-ERF to The U. of I. College of Medicine. Since 1962 the AMA-ERF has guaranteed 601 loans to Iowa medical students, interns and residents, totalling $662,950.

"The position of the AMA-ERF and the AMA respecting medical education is well established," continued Dr. Chenault. "For example, the AMA in its testimony before congressional committees has supported federal grants for construction, renovation, teaching and research, and increased financial assistance to all U. S. medical schools. Each year the AMA appropriates over $1,700,000 in support of its Division and Council on Medical Education. Our accreditation, undergraduate, graduate, continuing, and allied education programs have played a major role in establishing and maintaining the preeminence of medical education in the United States."

You Are There!

WHAT: Special Hearing, U. S. Senate Subcommittee on Health
WHERE: The Clarke County Court House, Osceola, Iowa
WHEN: 3:00 p.m.—May 13, 1971

We park near the Court House; we note schools have dismissed early, buses are unloading at the square, young people are massed on the Court House lawn.

We find the Court Room half-filled with youngsters, many of elementary school age. The rest of the audience ranges from middle-aged to elderly. As the senators finally enter, almost an hour late, more youngsters crowd in.

As chairman, Senator Edward (Ted) Kennedy explains the hearing's PURPOSE: "TO GET AN IDEA OF RURAL HEALTH NEEDS." He introduces Senators Peter Dominick (R), Colorado, and Harold Hughes (D), Iowa. Each senator explains briefly his interest in rural health needs.

A baby cries.

Senator Kennedy grins, turns to the baby and says, "That's all right. We want to hear from the *younger* generation, too!"

It is Senator Kennedy's show.

He invites comments.

There is a complaint that many elderly have no place to go when their Medicare hospitalization runs out. Senator Kennedy suggests there is a need in rural America for more extended care facilities. We agree.

The physician shortage is mentioned. We know that Osceola has adequate coverage; however, several very small nearby towns have lost doctors. A pharmacist speaks at length of the problems in his little town. Senator Kennedy asks: "How far away is your nearest doctor and hospital?" The answer ("about 15 minutes") makes some of us smile in remembrance of city distances and traffic jams.

A physician from a near-by 11-man clinic mentions his group (1) sometimes turns away 50 to 60 patients a day and (2) needs 2 or 3 more general physicians.

A gentleman sitting next to us whispers to me, "What we need is a crash training program!" I whisper back, "Why should Iowa sacrifice quality training? What we need is incentive for the young people we are already training to stay and practice in Iowa!"

There is the usual complaint that doctors are reluctant to make house calls. A physician advises he can see several patients at his office or hospital in the time it takes to make a house call and, of course, his time is limited. Senator Kennedy worries aloud about the ambulance cost in transporting a patient there, especially if the patient doesn't need to be hospitalized. No one suggests that if the patient is sick enough to require an ambulance, he very probably needs hospital care.

A man in a leg brace describes his fall off a roof and explains he had to go on welfare because of his medical expenses. Senator Kennedy shakes his head in sympathy and says, "No one should be forced into welfare because of medical bills." A lady sitting near us whispers, "That man was on welfare long before he fell off the roof."

A mother whose daughter is a cancer victim sharply criticizes a Des Moines hospital for warning her that charges for the daughter's care would be about $100 a day. Mother mentions several times she works 32 hours a week and earns $1.60 an hour. She neglects to tell us her daughter was immediately transferred to University Hospitals in Iowa City.

A husband testifies his wife must make two trips weekly to Iowa City for kidney dialysis treatments. The cost is $500 per week. Blue Cross pays part. The State of Iowa pays part. He isn't asking for sympathy, but he gets it from all of us, particularly those of us who have long advocated assistance for catastrophic medical needs.

A lady from a small town in Southwestern Iowa explains the ladies in her town are saving Betty Crocker coupons for a kidney dialysis machine. Her enthusiasm and determination bring more applause than we hear all afternoon. But the Senator doesn't ask if her community has or will be able to obtain the trained personnel necessary to administer treatments. Labor costs are not mentioned by anyone.

The testimony ends with an elderly gentleman telling there was no room in the hospital for his dying wife, so she had to be placed at the end of a hall. He pledges to devote his life to God and to the care of the elderly. There is applause for him.

Senator Kennedy says the question is *whether we are going to allow all this to be in this country.* He is sorry he cannot stay longer to hear from more of us. There is applause for him.

We do not tarry to shake hands. We are more interested in fresh air. We do linger in Osceola to visit with a few local, informed citizens. The visit bothers us.

Since this jaunt is funded by the Senate, and since Senate funds, in turn, are supplied by taxpayers, we wonder about the necessity for visiting Osceola. Osceola is an exceptional small town with a fine hospital, staffed by well-trained physicians. In fact, we understand the advance men for Senator Kennedy had to spend considerable time rounding up people with complaints.

Your legislative chairman and her husband, John Beattie, M.D., who is a member of the Iowa Medical Society Legislative Committee, were not invited to testify. Yet, there was neither a testimonial nor a complaint that we had not already heard and discussed at length. We must conclude, then, that the Senator had some motivations other than "GETTING AN IDEA OF RURAL HEALTH NEEDS" when he decided to visit Osceola.

As we leave Osceola, we hope you will remember that Senator Kennedy's health bill will place a severe load on the nation's pocket book and more stifle the medical career ambitions of many people. We hope you will keep in mind that Iowa cannot attract young doctors or keep the present doctors if there is no incentive for ambitious, hard-working people.

We're glad you came along. STAY WITH US!

TRUDY BEATTIE
Legislative Chairman

Around the Hawkeye State

Polk County

The following officers were installed May 14 at the annual meeting of the Woman's Auxiliary to the Polk County Medical Society at the Des Moines Golf and Country Club.

OFFICERS FOR 1971-1972

President, Mrs. Meredith Saunders
President-Elect, Mrs. Dennis Wilson
First Vice President, Mrs. George Caudill
Second Vice President, Mrs. Charles Hull
Recording Secretary, Mrs. Joseph Torruella
Treasurer, Mrs. J. Donald Anderson
Corresponding Secretary, Mrs. Ronald Eckoff

Vision Screening: Barb Eckoff reported screening a total of 331 children in 7 schools (2 new) with 16 volunteers giving a total of 128.5 hours service.

Disaster Preparedness: The Disaster Workshop had a total of 30 ladies who participated in February. Most of the lay volunteers attending were from the Medical Auxiliary.

Holiday Greeting Card Project:

Profits from this sale were dispersed in this manner:

AMA-ERF	$ 838.93
YWCA Building Fund (ramp for handicapped) final payment	424.50
Camp Sunnyside (Campership for handicapped person)	97.50
WASAMA	10.00
Orchard Place (treatment center for disturbed children)	100.00
YWCA Fund for Working Women Seminar	30.00
Society for Prevention of Deafness	87.97
Red Cross	87.97
Total	$1,679.87

This is the largest amount earned to date from this sale. This year we also sold toys and fruit cake.

International Health: This year we have followed the State Auxiliary theme and made our sister State of Yucatan, Mexico, the focus of our attention. Through the year collections have been made for this very poor section of Mexico. In April a successful drive was completed. Everything from old clothing, bedding, medicine, office equipment was included. This will be sent through the *Partners of the Americas.*

Memorial Service

Departed members of the Auxiliary have been honored by memorial contributions to the Health Education Loan Fund. The memorial, service at the 1971 Annual Meeting was conducted by Mrs. James Bishop, assisted by Mrs. Elmer Vorisek at the piano. Mrs. Max Olsen placed a large lily in a bouquet for each of the deceased.

Mrs. Bishop read from Psalms: *Lord, teach us to mark our days that we may prize them duly, for our life is like the transient breath that tells a mournful story. Early or late, stopped short by death and WHERE IS ALL OUR GLORY? Restore our comforts as our fears, our joy as our affliction. Thy glorious beauty there reveal and with thy perfect image seal thy servants and their labors.*

"Death," Mrs. Bishop said, "is but a moment in the passage of time, a step toward the eternity to which our Creator has destined us. As we cherish the memory of these loved ones, may we be reminded that among them are some of our most loyal and devoted members, who labored long and hoped much for our Auxiliary. Jesus taught that the measure of true greatness is to be found in service. When we come to the end of life and look back upon how we have spent our day, the important thing is not the power we have gained, the reputation we have achieved, or the property we have accumulated. The thing that matters is the service we have rendered.

"Year after year—and one by one—we must bid farewell to those who were sisters and friends in our midst. May we ever be reminded of the sympathy their lives have thrown on our pathways, and the fellowship we have reaped from their associations. Their work was well done and we shall all share in the harvest of their labors.

"Let our unity be symbolized with a moment of silent prayer as we place these flowers in memory of our departed members.

	County
Mrs. S. S. Westly	**Worth**
Mrs. James F. Gerken	**Black Hawk**
Mrs. M. H. Brinker	**Greene**
Mrs. E. B. Howell	**Wapello**
Mrs. Paul G. Ingraham	**Monona**
Mrs. Maurice Wicklund	**Black Hawk**

"May these blossoms ever remind us of the beauty and fragrance our beloved members brought into our lives. Quoting LaFontaine: 'Remembrance is presence in absence; it is speech in silence, it is the ceaseless return of a past happiness.' "

With bowed head, Mrs. Bishop prayed: "Heavenly Father, help us to know that life is not ended, but merely changed; that when our earthly abode is dissolved, an eternal resting place awaits us in heaven. May our souls rest in peace and perpetual light shine upon us. AMEN."

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

Personals

Dr. Arnold M. Reeve, the State Commissioner of Public Health, was guest speaker at a recent meeting of the Wright County Tuberculosis Association.

Dr. Thomas C. Piekenbrock, of Dubuque, chairman of the Governor's Advisory Board on Mental Health, delivered the main address at the first annual board meeting of the Clarinda Mental Health Center of Des Moines. The meeting was held in April at Iowa Methodist Hospital in Des Moines. Dr. Piekenbrock discussed the achievements in the field of mental health and the prospects for improved treatment of the mentally ill.

Dr. James R. Blackman has joined **Dr. Dale A. Harding** in the practice of general medicine, surgery and neurology in Eagle Grove. A 1969 graduate of The U. of I. College of Medicine, Dr. Blackman interned at St. Mary's Hospital in Duluth and completed his residency in neurology at The U. of I. College of Medicine.

Dr. Carl R. Kruse, of Postville, has been appointed Allamakee County Deputy Medical Examiner.

Dr. Howard J. Hartman has retired after 42 years as a practicing physician in Waterloo. Dr. Hartman received the M.D. degree at the University of Chicago in 1928 and came to Waterloo on September 1, 1929 following a year of internship at Los Angeles General Hospital. Dr. Hartman and his wife have moved to Lake San Marcos, California, where they plan to spend their retirement.

Dr. Leslie Bernstein, an associate professor in the Department of Otolaryngology and Maxillofacial Surgery at The U. of I. College of Medicine, was the program chairman for the seventh annual scientific meeting of the American Academy of Facial Plastic and Reconstructive Surgery, Inc., in San Francisco.

Dr. Johann L. Ehrenhaft, professor and head of thoracic surgery at The U. of I. College of Medicine, recently participated in teaching rounds and lectured on "Empyema" at St. Luke's Presbyterian Hospital in Chicago.

Dr. Sergio Rabinovich, of Iowa City, has been elected president of the Iowa Thoracic Society; **Dr. Hal B. Richerson,** of Iowa City, president-elect; **Dr. Joel D. Teigland,** of Des Moines, vice-president; and **Dr. James E. Kelsey,** of Des Moines, secretary-treasurer. Elected to serve on the Board of Directors were **Dr. John E. Kasik,** of Iowa City, **Dr. L. J. Kirkham,** of Mason City, **Dr. Montague S. Lawrence,** of Iowa City, **Dr. C. M. Marriott,** of Sioux City, and **Dr. Elizabeth Procter,** of Des Moines.

Dr. Charles E. Semler, Jr. has joined his father, **Charles E. Semler, D.O.,** in the practice of medicine at Story City. A 1968 graduate of The U. of I. College of Medicine, Dr. Semler served his internship in Springfield, Ohio. He has just returned from Viet Nam where he spent the past year with the U. S. Air Force.

Dr. Richard M. Caplan, an assistant dean at The U. of I. College of Medicine, was guest speaker at a recent meeting of the Central States Dermatologic Society in Detroit. Dr. Caplan was the discussant for case presentations and participated in a panel program.

Dr. Eunice Chou, a pediatrician, has joined **Drs. L. O. Goodman, M. E. Jeffries,** and **E. J. Marble** at the Marshalltown Medical Clinic. Dr. Chou received the M.D. degree from National Taiwan University and interned at Cook County Hospital. She then spent two years in a general pediatrics residency and two years in residency in pediatric cardiology at St. Christopher's Hospital for Children at Temple University in Philadelphia. In addition Dr. Chou spent a year and a half as a teaching fellow in pediatrics at the University of Alberta

Medical School, and six months in residency in internal medicine at Royal Alexandria Hospital, Edmondton, Alberta, Canada. Dr. Chou is certified by the American Board of Pediatrics and the Royal College of Physicians and Surgeons of Canada.

Dr. William B. Bean, Sir William Osler Professor at The U. of I. College of Medicine, was elected as Master by the American College of Physicians at its recent annual meeting. This is the highest membership category in the 17,000-member international medical specialty society. There are 83 Masters in the College.

Dr. Paul O'Keefe, of Waterloo, has received the Amvet Signal Award. The presentation was made at an awards banquet held at the Waterloo Amvets Home. The Signal Award is presented annually to an individual who has done an outstanding job in the community.

Dr. James A. Clifton, professor and head of the Departmnet of Internal Medicine at The U. of I. College of Medicine, presided at the 74th annual meeting of the American Gastroenterological Association in Miami Beach, Florida. Dr. Clifton has served the past year as president of the AGA.

Dr. Carl Hanson, a Waterloo pediatrician, was recently presented a recognition plaque by the Black Hawk County Association for Retarded Children in appreciation of his "dedicated efforts on behalf of the mentally retarded." Dr. Hanson was cited for his many years of service to handicapped and underprivileged boys and girls.

Dr. C. N. Hyatt, who lives in Anamosa and is on the medical staff at the State Men's Reformatory, has established a private medical practice at Onslow. Dr. and Mrs. Hyatt will continue to reside in Anamosa.

Dr. Robert E. Hull has been named medical director at the Maytag Company in Newton. Dr. Hull succeeds **Dr. Jesse L. Walker,** who left the company May 31 to become medical director for three clinics in the Cumberland Gap area of the Appalachian mountains. Before coming to Newton, Dr. Hull was in private practice in Wichita, Kansas, and served as a medical consultant for Boeing Aircraft. He received the M.D. degree from the University of Kansas.

Dr. E. A. Larsen, of Centerville, was recently presented the Dr. Walter L. Bierring Award by the Iowa TB and Respiratory Diseases Association. The award was given to Dr. Larsen for his outstanding contribution to the health field and for exceptionally meritorious service in the practice of medicine. The award had not been given since 1968.

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Dr. Francois M. Abboud, professor of internal medicine at The U. of I. College of Medicine, has assumed the presidency of the American Federation for Clinical Research. Dr. Abboud, director of the College's cardiovascular division, has served this past year as president-elect of the 7,000 member organization.

Dr. DeWayne Anderson has closed his office in Stanhope and has become associated with the McFarland Clinic in Ames.

Dr. Herman J. Smith, a Des Moines internist, has retired from the private practice of medicine to accept a full-time position as Director of Medical Service at Iowa Lutheran Hospital in Des Moines. **Dr. J. F. Veverka** was recently appointed Director of Medical Education at Iowa Lutheran. Dr. Veverka is a general practitioner in Prairie City.

Dr. M. L. Scheffel, a physician in Malvern for 21 years, closed his office June 1 to accept a residency in pediatrics at the University of Nebraska Medical Center.

Dr. L. W. Swanson, a Mason City internist, was guest speaker at the May scientific meeting of the Wright County Medical Society. Dr. Swanson spoke on early treatment of coronary thrombosis and described his pioneer work with the mobile coronary care unit of Cerro Gordo County.

Two Iowa Physicians, **Dr. M. Paul Strottman,** of Iowa City, and **Dr. James E. Kelsey,** of Des Moines, were recent recipients of awards presented by the Iowa Chapter of the Arthritis Foundation. Dr. Strottmann received the Chapter's 1970 Medical Paul Cotton Award. He was cited for his dedication to the field of rheumatic diseases. The Chapter's 1970 Lowry Memorial Award was presented to Dr. Kelsey for his dedicated service to his patients and his community.

Dr. Robert E. Hodges, a faculty member of The U. of I. College of Medicine for 17 years, has been appointed to the faculty of the University of California College of Medicine at Davis. Dr. Hodges will be a professor of medicine and head of nutrition at the California school. A professor of internal medicine and director of the metabolic ward at The U. of I., Dr. Hodges has directed numerous research projects in the field of nutrition. He received the M.D. degree at The U. of I. College of Medicine in 1947 and completed his specialty training in internal medicine at The U. of I. in 1952.

Dr. Robert E. Durnin, professor in the Department of Pediatrics at The U. of I. College of Medicine, recently moderated a pediatrics auscultation seminar at the Sioux City Medical Clinic. The program was sponsored by the Iowa Regional Medical Program and the Department of Pediatrics at The U. of I. Physicians from Plymouth, Monona, Union and Dakota Counties attended.

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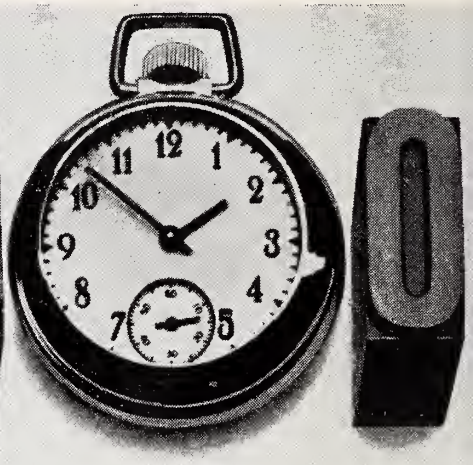

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WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

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Dr. J. L. Walker, who is leaving Newton and his position as head of the Maytag Company medical department to join a clinic in the Appalachian region of Tennessee, Kentucky and Virginia, was honored recently by the Newton Lions Club at "Doc" Walker Night. Following recognition speeches by Lions Club officers, Dr. Walker presented a slide presentation on the area he will serve.

Dr. Joseph Song, a pathologist at Mercy Hospital in Des Moines, has been named director of laboratory services for St. Joseph's Mercy Hospital in Centerville. Dr. Song or one of his associates will visit the hospital one day each week. **Dr. Noble Irving**, a Des Moines radiologist, has been selected to direct the X-ray department at the Centerville hospital. Dr. Irving or one of his associates will be in Centerville two days each week.

Dr. William A. Castles recently completed his twenty-fifth year of serving Dallas Center and the surrounding community. A 1935 graduate of The U. of I. College of Medicine, Dr. Castles served his internship at St. Mary's Hospital in Kansas City and his surgical residency at the Missouri Pacific Hospital in St. Louis. Following his World War II discharge, he came to Dallas Center and purchased the practice, office and home of the late **Dr. E. J. Butterfield.** Dr. Castles is a past president of the Dallas-Guthrie County Medical Society and the Iowa Chapter of the American Academy of General Practice.

Dr. Robert G. Wilson, of Missouri Valley, has been elected to active membership in the American Academy of General Practice.

Dr. Earl H. DeShaw, of Monticello, was recently honored at a testimonial dinner for nearly 40 years of service to the community. Representatives from various organizations gave short talks in tribute to Dr. DeShaw and a reception for Dr. and Mrs. DeShaw was held at the conclusion of the dinner.

Dr. Arthur A. Spector, an assistant professor in the Department of Internal Medicine at The U. of I. College of Medicine, has been elected to the American Society for Clinical Investigation. To be so elected, a physician must be less than 45 years old, and he must have accomplished meritorious original research in the clinical or allied sciences of medicine. Dr. Spector's studies are aimed at understanding the mechanisms that regulate the deposition of fats in the blood vessel wall.

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Dr. T. C. White has closed his office in Denison to take a residency at McLarnen General Hospital in Flint, Michigan.

Dr. Charles A. Waterbury, of Waterloo, moderated a recent public discussion in Waterloo entitled, "The Doctor's Bag—That Pain in Your Pocketbook." Panelists were **Drs. T. L. Trunnell, Gilbert Clark** and **Warren Nash,** all Waterloo physicians. Questions submitted by Waterloo COURIER readers were answered by the panel.

Dr. Raymond W. Carson, a Winterset physician for 21 years, has moved to Waterloo. Dr. Carson has joined the Waterloo Surgical and Medical Group, where he will specialize in family practice.

Dr. T. T. Bozek, of Iowa City, and **Dr. Philip D. McIntosh,** an Ottumwa physician, have been certified as diplomates of the American Board of Family Practice.

Dr. J. Scott Pennepacker has been appointed associate pathologist at St. Luke's Medical Center in Sioux City. Dr. Pennepacker has been in the

practice of pathology at Janesville, Wisconsin, for the past six years. He received the M.D. degree at the Boston University School of Medicine, completed his internship at Deaconess Hospital in Spokane, Washington, and served his residency in pathology at the University of Nebraska College of Medicine. He is a past president of the Wisconsin Association of Blood Banks and the medical staff at Mercy Hospital in Janesville. Dr. Pennepacker is certified in anatomic and clinical pathology.

Dr. Louis Fingerman, of Des Moines, presented a tape on "How Diabetes Affects the Eyes" at a recent meeting in Charles City of the North Central Iowa Diabetic Unit.

Dr. William B. Galbraith, of Cedar Rapids, and **Dr. Thomas D. Ghrist**, of Des Moines, have been granted fellowships in the American College of Physicians. This distinction is earned through certification by specialty board, by presentation of published material, by evidence of scientific accomplishments and by academic or hospital affiliations.

Dr. Mary E. Kohl has been named medical director of the Poweshiek County Mental Health Center. A graduate of Purdue University and the University of Wisconsin Medical School, Dr. Kohl has completed residencies in internal medicine, pediatrics, contagious diseases, psychiatry and child psychiatry. She has served as coordinator of clinical services at the Des Moines Child Guidance Center, chief child psychiatrist at the Center, senior tuberculosis physician at Ray Brook State Tuberculosis Hospital in New York, and tuberculosis physician at Biggs Memorial State Tuberculosis Hospital in Ithaca, New York. Dr. Kohl will serve at the Poweshiek County Mental Health Center one day a week.

Dr. Mansour Jadali, of Des Moines, will join **Drs. E. K. Lowary** and **E. F. Brown** in the practice of medicine at Webster City following completion of his surgical residency at Iowa Methodist Hospital.

Dr. Robert G. Love began the practice of medicine in Lansing on June 1. Dr. Love is a 1952 graduate of the University of Maryland Medical School and completed his internship at Salem, Massachusetts. A member of the American Academy of General Practice, Dr. Love will occupy the former office of **Dr. Allan Vasher.**

Pre-Sate® (chlorphentermine hydrochloride)

Caution: Federal law prohibits dispensing without prescription.

Indications

Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications

Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings

When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.

Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.

Usage In Children Not recommended for use in children under 12 years of age.

Precautions

In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions

Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration

The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage

Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.

Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

How Supplied

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- Management of the Nonhospitalized Patient With Chronic Obstructive Lung Disease—Norman G. Hepper, M.D.
- Further Experiences With a Community Hospital Coronary Care Unit—L. W. Swanson, M.D.
- Prenatal Genetics and Cytogenetics—Hans Zellweger, M.D., Charles White, M.D., and Robert Kretzschmar, M.D.
- An Evaluation of Transaxillary Removal of Cervical and First Rib—Robert E. Petersen, M.D., Frederick D. Staab, M.D., and Edgar S. Brintnall, M.D.

September, 1971

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References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

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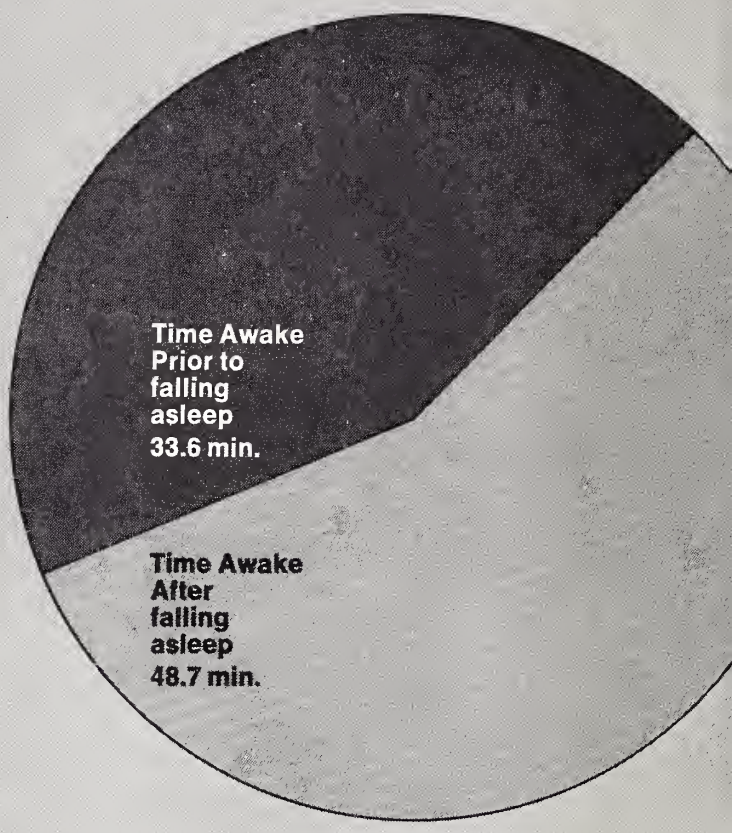
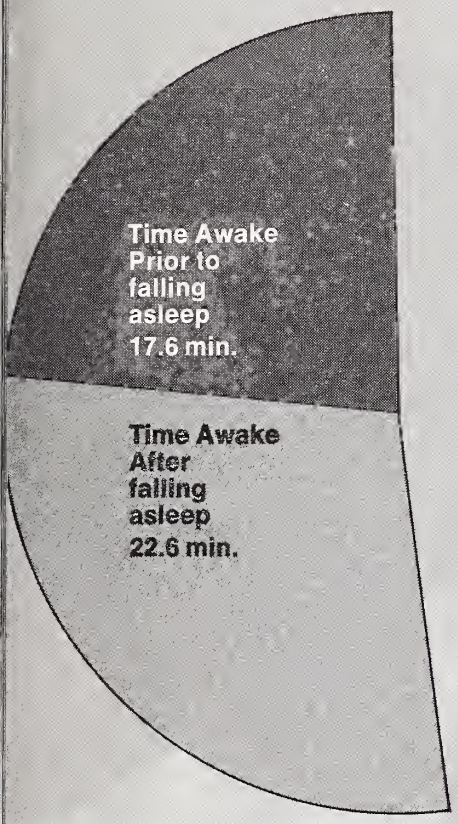


Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

On
Dalmane
flurazepam HCl)



ge sleep laboratory measurements in cited studies

eter	Before Dalmane	On Dalmane
equired to fall asleep	33.6 min.	17.6 min.
time after onset of sleep	48.7 min.	22.6 min.
er of wakeful periods after et of sleep	12.2	8.4
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Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

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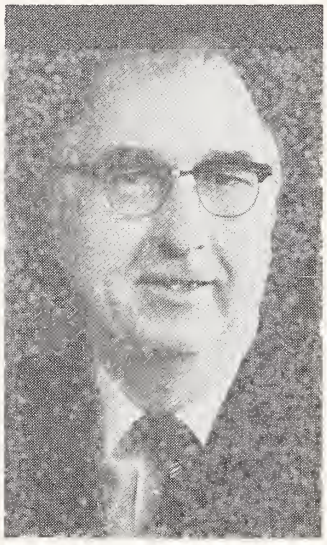
President's Page



Enmeshed in the daily delivery of medical services we as physicians must ask ourselves whether the highest possible quality of care is being provided the people of Iowa. Quality of medical care is strongly influenced by teaching institutions supplying physicians and by the health milieu of the area. The IMS has worked "hand-in-glove" with the University of Iowa to inspire students to understand the progressive changes in patient care so that as interns, residents, practitioners or teachers the primary objective becomes the delivery of quality care.

Most Iowa physicians belong to a hospital staff and enjoy continuing medical education interwoven with the committee structure and periodic scientific discussion of hospital cases. Organized medicine encourages the continued medical education activities of the College of Medicine, co-sponsors many of these activities, stimulates various specialty organizations in the production of their own scientific programs, involves high school students as in the Hawkeye Science Fair, and uses all possible means of meeting head-on problems of the day, such as drug abuse.

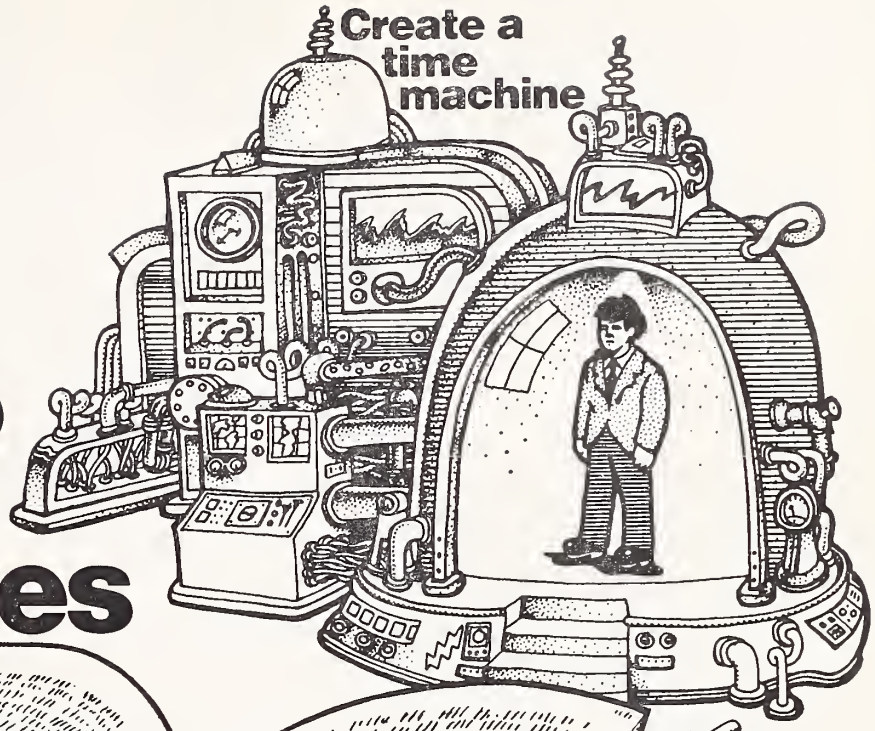
One of the primary objectives of Peer Review is to enhance the quality of medical care. The educational possibilities for the betterment of medical care are nascent in Peer Review. Investigative minds must find creative methods by which the computer will enable us to measure the quality of medical care with predetermined, malleable and changing standards. Limitation of quality medicine should not be circumscribed by the failure to employ or to restrict the use of scientific and technical methods.

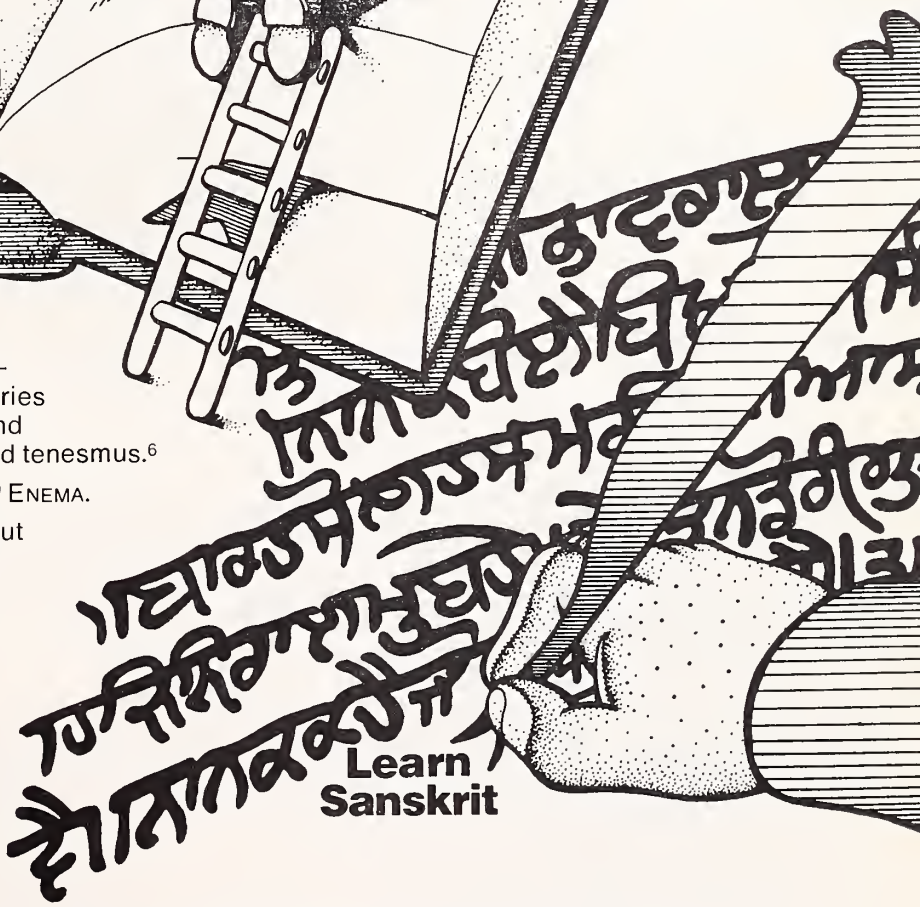
Our practice must be so impeccable that non-medical individuals may not arrogate presumptuous judgment of our mode and quality of care. Our good will, determination and unity must help mold the structure of society in the employment of medical knowledge in combatting disease. Organized medicine through practice, teaching and research must skillfully acuate quality of medical care to every farm, hamlet and city of Iowa.

L. J. O'Brien M.D.

President

What to do until suppositories work:





Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

Alternative to the long unpleasant wait: FLEET® ENEMA.

FLEET ENEMA works within 2 to 5 minutes without pain or spasm. FLEET ENEMA induces a physiological pattern of evacuation, unlike purgatives and laxatives that may liquefy the stool. FLEET ENEMA avoids the irritation common with soapsuds enema. And FLEET ENEMA is leakproof: a rubber diaphragm at the base of the prelubricated tube prevents seepage and controls the rate of flow, assuring comfortable administration.

FLEET ENEMA. Regular and pediatric. Both completely disposable—like suppositories, only better. Much better.

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Lynchburg, Va. 24505

Fleet pharmaceuticals

Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present.
Caution: Do not administer to children under two years of age unless directed by a physician.
References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

F19A71

Empirin® Compound with
Codeine, gr. 1/2 or gr. 1
Helps overpower pain
Each tablet contains: aspirin gr. 3½,
phenacetin gr. 2½, caffeine gr. ½.
No. 3 contains codeine phosphate* (32.4 mg.) gr. ½.
No. 4 contains codeine phosphate* (64.8 mg.) gr. 1.
* (Warning—may be habit forming.)
CIII Empirin Compound with Codeine is now classified in Schedule III.
Available on oral prescription and may be refilled 5 times
within 6 months, unless restricted by State law.
Complete literature available on request from Professional Services Dept. PML.
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North Carolina 27709

IOWA MEDICAL MISCELLANY

NEW DISABILITY PROCEDURES . . . Iowa residents seeking Social Security Disability Benefits will follow new procedures in obtaining medical evidence to support disability claims. Up to now Iowa claimants have been aided in obtaining initial medical evidence by the Social Security District Offices. Beginning in October the responsibility for helping claimants will be shifted to the Social Security Disability Determination Division (DDD) of the Iowa State Rehabilitation Agency. The DDD will write directly to Iowa MD's and institutions for medical information. The DDD medical consultants will use their experience and knowledge to determine when to initiate medical development. The information requested of physicians will be specific, e.g., onset of problem, severity, probable duration of impairment. In line with the law, claimants will remain responsible for expenses or fees incurred in securing initial medical evidence. According to H. E. Wichern, M.D., the DDD's Chief Medical Consultant, the new procedure is intended to save time and effort for reporting medical sources and will hopefully lead to a better understanding among physicians as to the type of medical evidence needed.

• • •

FOUNDATION MEMBERSHIP . . . The number of Iowa physicians applying for membership in the new Iowa Foundation for Medical Care had surpassed the 400 mark by mid-August. Bulk of these memberships have come as a result of the mid-July invitational mailing. The Foundation Executive Committee met August 18 to consider further aspects of the organizational program.

• • •

BRITON TO SPEAK . . . Enoch Powell, minister of health in Great Britain from 1960 to 1963, will describe health care conditions in his country in an October 8 address at the Colony Motor Hotel in Clayton, Missouri. Powell will be speaking at a meeting of the Association of American Physicians and Surgeons.

145 START STUDY . . . Freshman medical students (145 in number) will report to The U. of I. College of Medicine September 8 for orientation and will begin classes September 13. Eighty-six per cent of the freshman medical enrollees are Iowans. Continuing their medical programs in September will be 145 sophomores, 148 juniors and 147 seniors, making a total of 585 students. Plans call for increasing the entering medical class to 160 and eventually to 175; this expansion awaits completion of the new basic sciences building and other decisions.

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COMMITTEE REVISION . . . In a broadening move, the Society has expanded and renamed its Committee on Delivery of Health Services to a Rural Area in Need. New designation for the unit is Committee on Delivery of Health Services. Chaired by M. E. Olsen, M.D., Minden, the Committee has two new members: P. J. Leehey, M.D., Independence, and M. E. Kraushaar, Fort Dodge. Other members are W. A. Castles, M.D., Dallas Center, J. K. MacGregor, M.D., Mason City, D. F. Rodawig, Jr., M.D., Spirit Lake, and J. W. White, M.D., Dubuque. A principal task of the Committee will be to maintain liaison and consult with the College of Medicine on the Oakdale, Muscatine and similar projects.

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DISTRICT VIII CONFAB . . . Representatives of the eight counties represented in IMS District VIII held an organizational dinner meeting September 1 in Burlington. Current information on the IMS, Foundation for Medical Care and Blue Shield was presented. John F. Collins, M.D., Davenport, is the District VIII Councilor.

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EMERGENCY SERVICES . . . Representatives from three existing Society committees have been named to a new Committee on Community Emergency Medical Services. Selected members of the Committees on Rural Health, Safe Transportation and National Emergency Medical Service will serve on this new unit which is to be chaired by Arthur Downing, M.D., Des Moines.

• • •

CAMPUS PROGRAMS . . . The Iowa Medical Society will co-sponsor with the AMA a 1971-72 program of seminars in the medical sciences. The series will be offered on the campuses of eight Iowa colleges and universities. The first two, in October, will be at Loras College in Dubuque (7 p.m., October 12) and Luther College in Decorah (10 a.m., October 13). George L. Baker, M.D., Assistant Dean, Medical Student Affairs, U. of I. College of Medicine, will speak on "Don't Interfere With the Lifeline." Other programs will be at Upper Iowa, Wartburg, Central, Drake, Iowa State and Grinnell.

DRUG ABUSE & ALCOHOLISM . . . The Seventh Seminar for Community Physicians will occur Thursday, September 9, at the Mental Health Institute in Independence. The day-long meeting will include presentations by R. M. Bittle, M.D., Assistant Professor of Psychiatry, U. of I. College of Medicine, Nuttren Gokcora, M.D., Internist, Independence MHI, Lloyd Spencer, M.D., Medical Director, Alcohol Unit, MHI, and Robert Hammer, Ph.D., Coordinator, Adolescent Unit, MHI.

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HMO'S DISCUSSED . . . Society officers attended a recent briefing on health maintenance organizations arranged by The Bankers Life and held in Des Moines.

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DRUG MATTER . . . Moved from BNDD Schedule III to Schedule II in August were amphetamine and methamphetamine products and some combinations. This move imposes certain new restrictions and requirements: written prescriptions (signed by the physician) are required (except in emergency situations), refilling is prohibited, separate records must be maintained and kept readily available for BNDD auditing, and all Schedule II drugs must be stored in a securely locked, substantially constructed cabinet.

CONTINUING EDUCATION . . . Second of two week-end conferences/retreats on "Continuing Education in Iowa Hospitals" will be September 10-12 at Lake Okoboji. The first program was August 13-15 in Iowa City. Sessions are being offered by The U. of I. College of Medicine in cooperation with the IMS and its Committee on Medical Education and Hospitals. Information is available from R. M. Caplan, M.D., Assistant Dean, Continuing Medical Education, U. of I. (Telephone: 319-353-5763).

• • •

NEW JCAH STANDARDS . . . It is anticipated the Society will join with the Iowa Hospital Association to sponsor a November meeting to discuss implementation of the new standards of the Joint Commission on Accreditation of Hospitals.

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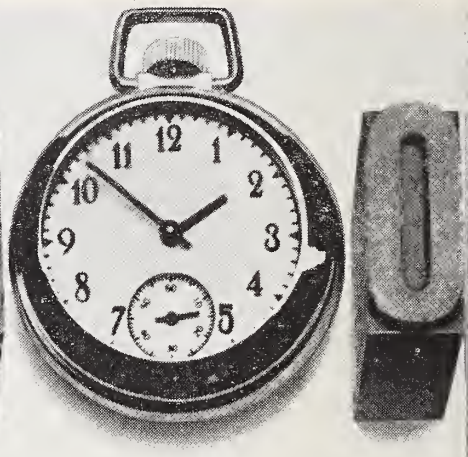
CLAIMS PROCESSING . . . Pending Medicare/Medicaid claims at Blue Shield have hovered at 10,000 level this summer, a dramatic reduction from a year ago when the total ran up to 100,000. In 1970 Medicare Part B claims totalled 711,758 and amounted to over $20 million in payment for physicians' services.

(Continued on page 531)

For insomnia...one capsule for the rest of the night

NOLUDAR® 300



(methyprylon)

Before prescribing, please consult complete product information, a summary of which follows:
INDICATION: Relief of insomnia of varied etiology.
CONTRAINDICATIONS: Patients with known hypersensitivity to the drug.
WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
Physical and Psychological Dependence: Physical and psychological dependence rarely reported. If withdrawal symptoms do occur they may resemble those associated with withdrawal of barbiturates and should be treated in the same fashion. Use caution in administering to individuals known to be addiction-prone or those whose history suggests they may increase the dosage on their own initiative. Repeat prescriptions should be under adequate medical supervision.
Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
ADVERSE REACTIONS: At recommended dosages, there have been rare occurrences of morning drowsiness, dizziness, mild to moderate gastric upset (including diarrhea, esophagitis, nausea and vomiting), headache, paradoxical excitation and skin rash. There have been a very few isolated reports of neutropenia and thrombocytopenia; however, the evidence does not establish that these reactions are related to the drug.

Each capsule contains 300 mg of methyprylon.

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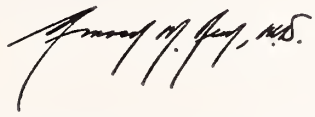
STATE DEPARTMENT OF HEALTH



ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Emergency Medical Services

The Iowa State Department of Health has established the Emergency Medical Services Section in the Community Emergency Program Division of the Community Health Service. The Chief of the Section is Albert E. Hunter, who is assisted by John Menefee and Roger Hayes.

The goals of the Emergency Medical Services Section will be to reduce the number of fatalities and decrease the degree of injury due to inadequate emergency medical service at the site of an accident and during the transportation by: (1) Increasing the number of properly equipped ambulances with trained Emergency Medical Services personnel; (2) Increasing the number of properly equipped patrol and rescue vehicles manned by personnel, with appropriate E.M.S. training; (3) Providing continuing education and training programs for all personnel involved in Emergency Medical Services; (4) Providing data and information for state-wide planning and organization; and (5) Encouraging appropriate legislation for Emergency Medical Services.

The U.S. Department of Transportation, under Section 402 of the Highway Safety Act of 1966, has made funds available to assist communities in acquiring ambulances, medical equipment and communications systems. At the present time 19 Iowa communities have acquired a total of 22 ambulances through this program. During fiscal year 1972, 33 more units will be delivered to meet the needs of an additional 24 or more communities. Seventeen communities have already received assistance in the purchase of medical equipment or communications systems, which increases the quality of service delivered.

Communities which have received ambulances, medical, or communications equipment will be required to have their personnel attend and complete the training course discussed here. Other ambulance services, volunteer fire departments, police and other interested persons may attend.

The training of personnel will be conducted as part of the Area Community Colleges' Adult Education Program. The training, beyond the level of Advanced Red Cross First Aid, will consist of a basic course of 71 hours of instruction, demonstration and practice, with an additional 10 hours of training in hospital emergency rooms. Attendants will take additional review courses at least every two years. Tentatively, all area colleges plan to initiate this course during the coming school year.

A study will be conducted to determine response time and overall Emergency Medical Services coverage throughout Iowa. The emergency medical capabilities of health facilities will be assessed and the results will be made available to ambulance services and others to assist them in determining the closest adequate medical facility.

The new section hopes to do an E.M.S. Highway Marker Study to evaluate the placement of uniform highway signs indicating the location of hospitals and other Emergency Medical Services facilities.

Legislation is being recommended to the State Legislature which would regulate and upgrade the ambulance services in Iowa. It is hoped that some action will be taken on this bill during the next legislative session.

Cooperation and coordination is necessary if we are to improve the Emergency Medical Services provided throughout the State of Iowa. We hope you will communicate any of your plans and ideas to us, so a joint effort can be realized. Please direct all communications to: A. E. Hunter, Chief, Emergency Medical Services, Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa 50319 (Phone: 515-281-5264).

Cholera Concern

El Tor Cholera has been spreading through Asia, the Middle East and Africa since 1961, and the current pandemic could spread to the United States. Physicians should consider the possibility of cholera in any patient who develops diarrhea within five days after returning from an infected area. With prompt recognition and proper treatment the case fatality rate can be kept well below one per cent. Of the millions of Americans who have traveled into infected areas in the past decade, only four documented cases of cholera, none fatal, have been recorded.

What Iowa doctors need is a Malpractice Liability Carrier that won't fade when trouble comes.

Contact your local agent, or,

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CASUALTY INDEMNITY EXCHANGE

1600 Broadway

Denver, Colorado 80202 (303) 893-9797

Morbidity Report for Month of July 1971

Diseases	July 1971	1971 to Date	1970 to Date	Most July Cases Reported From These Counties
Amebiasis	1	3	1	Black Hawk
Brucellosis	4	11	28	Dubuque
Chickenpox	53	5363	4106	Dubuque
Conjunctivitis	2	348	221	Muscatine, Wright
Gastrointestional viral infection	37	5179	173	Johnson
German measles	5	657	1999	Polk
Gonorrhea	456	3053	3020	Linn, Polk, Scott
Hepatitis				
infectious	22	189	202	Scott
serum	2	11	0	Iowa, Polk
Histoplasmosis	3	14	9	Hamilton, Johnson, Union
Impetigo	14	220	282	Polk
Infectious mononucleosis	24	738	355	Johnson, Scott
Measles	32	2230	1056	Black Hawk
Meningococcal meningitis	1	10	10	Clinton
Meningo-encephalitis	2	3	4	Pottawattamie, Warren
Mumps	72	2920	2279	Des Moines, Dubuque
Pneumonia	42	532	583	Scott
Rabies in animals	21	157	65	Calhoun, Hardin
Rheumatic fever	3	42	39	Scott
Ringworm, body	1	79	129	Johnson
Salmonellosis				
S. derby	1	6	0	Woodbury
S. enteritidis	1	6	2	Black Hawk
S. habana	1	1	0	Story
S. javiana	1	1	1	Wapello
S. manhattan	1	3	0	Polk
S. muenchen	1	3	1	Black Hawk
S. newport	1	8	2	Cass
S. oslo	1	1	0	Pottawattamie
S. typhimurium	6	20	14	Dubuque 2, Lee 4
S. typhimurium var. copenhagen	1	1	2	Pottawattamie
Shigellosis				
S. sonnei	34	71	43	Johnson, Scott
Streptococcal infections	247	4519	4364	Johnson
Syphilis	36	359	327	Black Hawk, Polk, Woodbury
Tuberculosis, active	16	81	79	Scattered
Whooping cough	2	19	14	Audubon, Lee

Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

People learn in different ways.

Professional educators recognize that adults learn most profitably in some ways which are different from those applicable to children. Especially, adults learn in relation to problems and problem-solving which bear on their own experiences and responsibilities. Current critics of the conventional continuing medical education "courses" argue that topics discussed by an "expert" in the front of the room too seldom relate to the problems that truly matter to the practitioner sitting in the audience. Consequently, information may appear to be transferred from speaker to listener, but little real learning happens. And if "learning" is defined as an observable change in the behavior of the learner (a currently fashionable definition), then the solid evidence of learning is distressingly meager.

To provide for more *active* participation of the learner, ample opportunity for discussion with a teacher about one's own clinical problems, and "real" experiences provided through actual patient contact, the College of Medicine will soon be offering again its In-House Conference. An occasional practitioner who has come to this program has commented afterward that he felt the faculty should have prepared a more specifically didactic experience for the day. Obviously, that person did not understand that the essence of this type of conference involves doing whatever is customarily done in that department during the time of the visit. For the person whose learning style requires passive listening to others tell what *they* know, we have ample other conferences.

The general attractiveness of this in-house approach, and the satisfaction expressed by those who have participated the past two years, lead us to offer a learning opportunity of this general sort much nearer to many of you than Iowa City.

On October 6 a similar in-house type of experience will be made available using local medical staff, facilities and patient material at Broadlawns Hospital in Des Moines, along with visiting faculty from the University of Iowa College of Medicine. A similar hospital teaching day will be available at St. Joseph Mercy Hospital in Sioux City on November 18. Rounds will be made using local patients, and ample opportunity will exist to discuss actual problems brought by the registrants.

Informational literature will reach you soon about these programs. I hope they will seem appealing and useful.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Sept. 1-3	Managing Common Skin Problems (One Day Workshop, Repeated)
Sept. 9	Clinical Day in Cerebrovascular Disease
Sept. 10-11	Urology Postgraduate Conference
Sept. 10-12	Continuing Education in Iowa Hospitals (Workshop-Retreat at Lake Okoboji)
Sept. 16	Clinical Day in Cerebrovascular Disease
Sept. 18	Organ Recovery Conference
Sept. 20-23	Intensive Coronary Care Management Course
Sept. 22	Quality Control in Clinical Laboratory (State Hygienic Laboratory)
Sept. 22-23	Pediatrics Postgraduate Conference
Sept. 23-24	Iowa Orthopaedic Alumni Course
Sept. 24-25	Dermatology for the Dermatologist
Sept. 24-25	Anesthesiology Postgraduate Conference
Sept. 24-25	Physical Therapy Management of Childhood and Adolescent Disease
Oct. 2-3	Radiology Postgraduate Conference
Oct. 6	Bedside Conference for Family Practitioner (Broadlawns Hospital, Des Moines)
Oct.	Bedside Conference for Family Practitioner (Mercy Medical Center, Dubuque) (St. Joseph Mercy Hospital, Mason City)
Oct. 7	Clinical Day in Cerebrovascular Disease
Oct. 7-9	In-House Conference Practitioners (Class of 1946)

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

Society Meetings to Be Held in Conjunction With Postgraduate Courses:

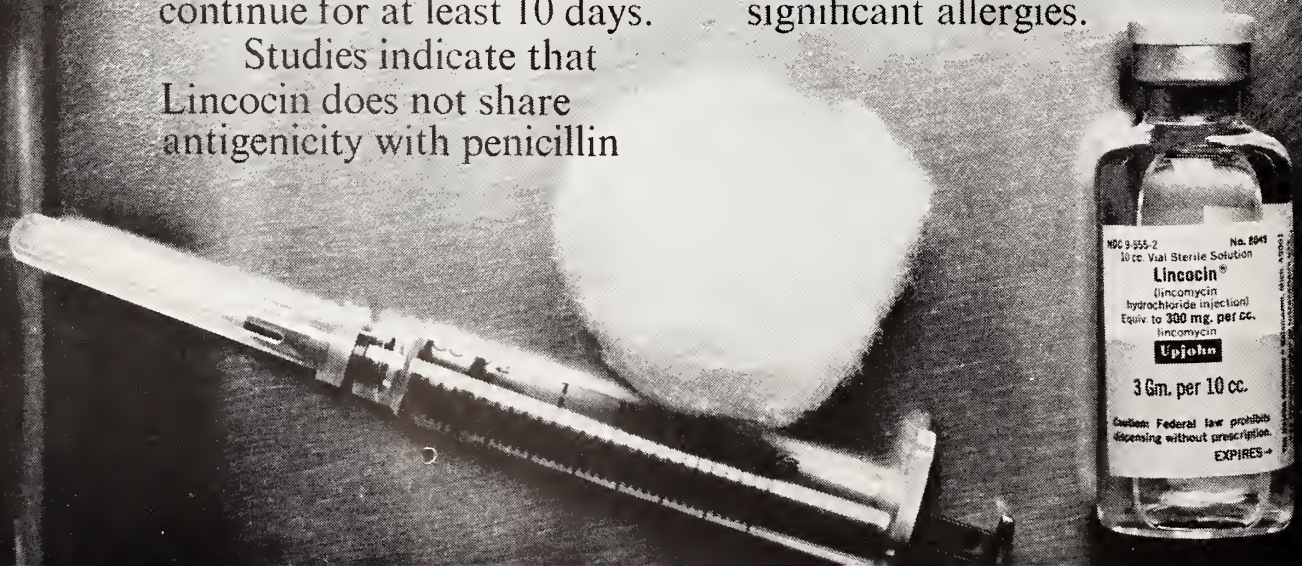
Sept. 10-11	Iowa Urological Society
Sept. 22-23	Iowa Chapter of American Academy of Pediatrics
Sept. 24-25	Iowa Society of Anesthesiologists
Sept. 24-25	Iowa Dermatological Society
Oct. 2-3	Iowa Radiological Society

Hypersensitivity to penicillin is a good reason to consider Lincocin®

(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn)

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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances. *Cardiovascular*—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

For additional product information, consult the package insert or see your Upjohn representative.

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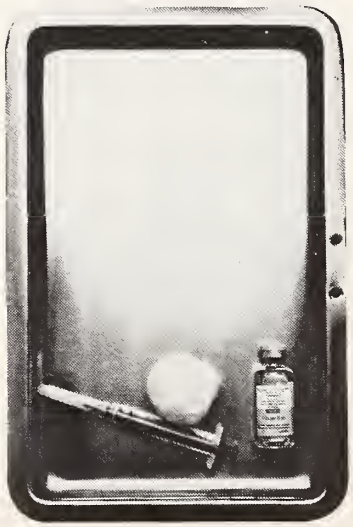

IN ASTHMA
IN EMPHYSEMA

optional therapy

THE mudranes®

All Mudranes are bronchodilator-mucolytic in action, and are indicated for symptomatic relief of bronchial asthma, emphysema, bronchiectasis and chronic bronchitis. **MUDRANE tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **Iodide side-effects:** May cause nausea. Very long use may cause goiter. Discontinue if symptoms of iodism develop. **Iodide contraindications:** Tuberculosis; pregnancy (to protect the fetus against possible depression of thyroid activity). **MUDRANE-2 tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline. **Iodide side-effects and contraindications are listed above. MUDRANE GG tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **MUDRANE GG-2 tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions:** Those for aminophylline. **MUDRANE GG Elixir.** Each teaspoonful (5 cc) contains 26 mg. glyceryl guaiacolate; 20 mg. theophylline; 5.4 mg. phenobarbital (Warning: may be habit-forming); 4 mg. ephedrine HCl. **Dosage:** Children, 1 cc for each 10 lbs. of body weight; one teaspoonful (5 cc) for a 50 lb. child. Dose may be repeated 3 or 4 times a day. Adult, one tablespoonful, 4 times daily. All doses should be followed with ½ to full glass of water. **Precautions:** See those listed above for Mudrane GG tablets.

MUDRANE—original formula

First choice

MUDRANE-2

When ephedrine is too exciting or is contraindicated

MUDRANE GG

During pregnancy or when K.I. is contraindicated or not tolerated

MUDRANE GG-2

A counterpart for Mudrane-2

MUDRANE GG ELIXIR

For pediatric use or where liquids are preferred

Clinical specimens available to physicians.

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On formulary and in the pharmacy...

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Kantrex®
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experience

A dozen years of Kantrex usage have established its efficacy, its versatility, its simplicity.

And its economy.

Faced with a life-threatening infection, the physician cannot conscionably consider economy a primary factor in selection of an appropriate antibiotic. However, when susceptibility reports are in, the infecting pathogens are often found to be susceptible to several antibiotics. The physician may then consider dose requirements and cost in his prescribing decision.

Kantrex requires one simple standardized dose for almost any patient with any susceptible mixed Gram-negative/staph infection (Pseudomonas are resistant). The usual adult daily dose of Kantrex is only 1.0 Gm....and the usual total course of therapy, 7-10 Gm. Translated to dollars and cents, the daily cost of Kantrex therapy may be only 1/2 to 1/8 that of therapy with other parenteral antibiotics used for serious hospital infections.

Doesn't it make good sense to use Kantrex?

Experience proves it does.

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For complete information, consult Official Package Circular.

Warning: Irreversible deafness can occur. Tinnitus or vertigo may also occur and indicate vestibular damage and impending deafness. The risk is sharply increased with renal dysfunction. In such cases, decrease size and frequency of doses. Discontinue kanamycin and check hearing if azotemia increases. Watch carefully for ototoxicity in older patients and patients receiving more than 15 Gm. of kanamycin. To avoid neuromuscular paralysis with respiratory depression, postpone intraperitoneal instillation in post-operative patients until recovery from anesthesia and muscle relaxants is complete. Avoid concurrent use of other ototoxic drugs including ethacrynic acid. Safety in pregnancy is not established.

Indications: Serious infections due to susceptible strains of *E. coli*, Proteus sp., *Enterobacter aerogenes*, *K. pneumoniae*, *Serratia marcescens* and *Mima-Herellea*. Culture and sensitivity studies should be performed.
Contraindications: A history of hypersensitivity to the drug. Prior auditory damage by kanamycin or other agents may be a contraindication if effective alternative therapy is available.
Precautions: Obtain audiograms before and during therapy in patients with renal dysfunction when treatment lasts more than 5 days. Stop Kantrex if tinnitus or hearing loss occurs. Hydrate patients to prevent chemical irritation of the renal tubules. Assess renal function periodically, both before and during therapy. If signs of renal irritation occur (casts, cells, proteinuria) increase hydration and reduce the dosage or the frequency of dosage if necessary — in azotemic patients the frequency (in hours) of doses may be obtained by multiplying the serum creatinine by 9. If azotemia or oliguria occur, discontinue therapy. Mycotic or bacterial superinfection may occur.
Adverse Reactions: Irritation or pain at the injection site, skin rash, drug fever, headache and paresthesias.
Dosage and Administration: The maximum total daily dose should not exceed 1.5 Gm. by all routes of administration. The usual dose is 7.5 mg./Kg./12 hours I.M. The average adult dose is 1 Gm. daily. Uncomplicated infections due to sensitive organisms should respond in 24 to 48 hours.

If no response occurs in 3 to 5 days, stop therapy and recheck the bacterial sensitivities. Hydrate patients well to minimize renal irritation. Inject deeply into the upper outer quadrant of the gluteal muscle. Discard partially used vials after 48 hours. The drug should not be physically mixed with other antimicrobials.
Supplied: Rubber capped vials as a ready-to-use sterile aqueous solution in two concentrations: 0.5 Gm. in 2 ml. and 1.0 Gm. in 3 ml. Also available — Pediatric Injection 75 mg. in 2 ml.

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Iowa Medical Miscellany

(Continued from page 522)

IMPORTANT PARLEY . . . Following instructions from the IMS House of Delegates, Society officers arranged and met September 1 with representatives of the Iowa Hospital Association, the two Blue Cross Plans, Blue Shield and the private insurance industry to compare points of view on developments pertaining to the delivery of health care in the State. Further conferences are contemplated.

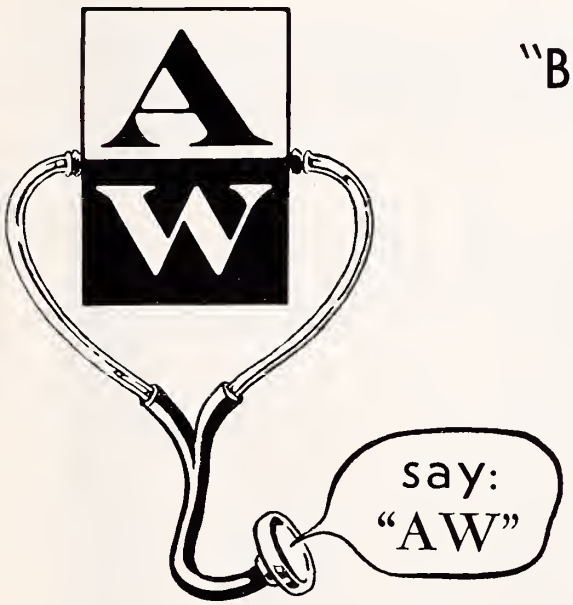
• • •

BLUE SHIELD BOARD . . . New physician members of the Blue Shield Board of Directors, as announced at the recent annual meeting, are Paul Ferguson, M.D., Lake City, and J. D. Ver Steeg, M.D., Des Moines. C. V. Edwards, Sr., M.D., Council Bluffs, and S. P. Leinbach, M.D., Belmond, were re-elected chairman of the board and president, respectively.

CR PROGRAM . . . A new three-year residency program to prepare family practice physicians was announced recently by officials of St. Luke's Methodist and Mercy hospitals in Cedar Rapids. L. Robert Martin, M.D., a California practitioner for 30 years, will direct the program, designated the Cedar Rapids Internship Program. The program will seek to produce family practitioners who will practice in Cedar Rapids or the surrounding area. It is anticipated residents in the program will work in the offices of local physicians as well as in the hospitals. The program also contemplates refresher courses for established physicians with upper level residents filling in for the doctors while they're absent for the instruction.

• • •

RESEARCH GRANTS . . . A November 1 deadline exists for filing medical research grant applications with the Iowa Thoracic Society. Research grants are available in tuberculosis, respiratory physiology and associated fields. Additional information and applications may be obtained by writing Iowa Thoracic Society, 1818 High Street, Des Moines, 50309.



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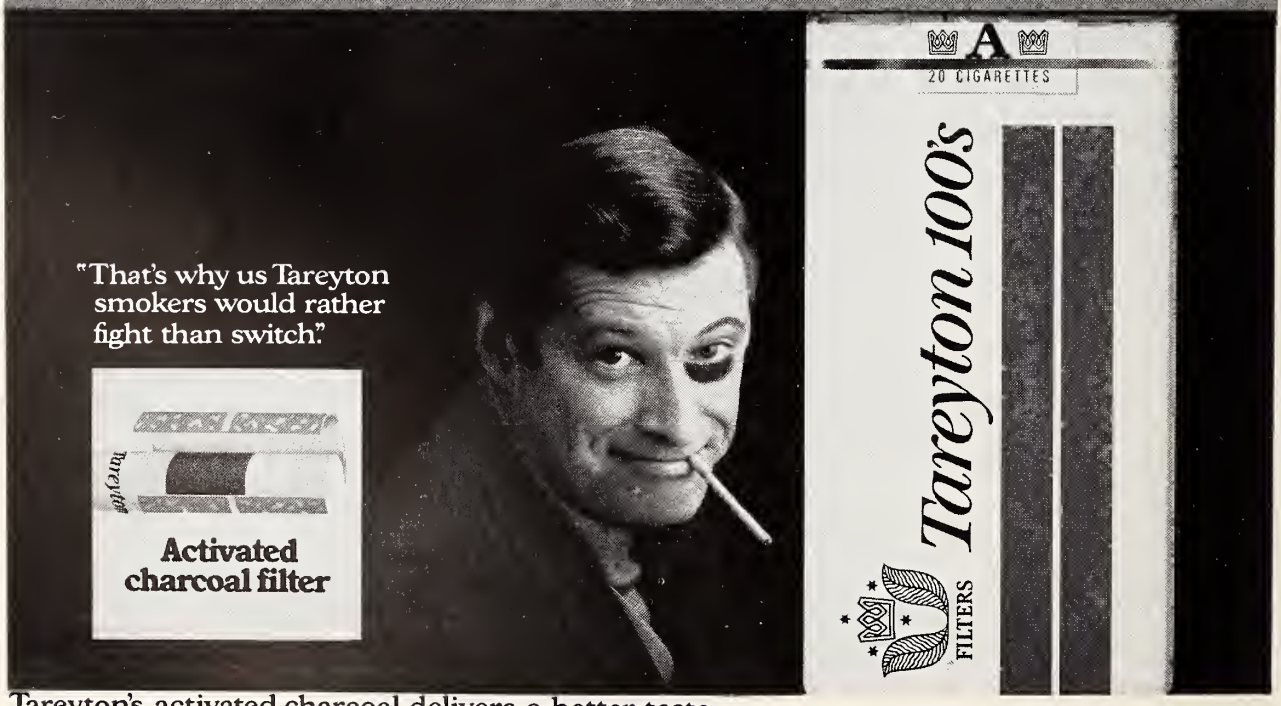

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THE DOCTOR'S BUSINESS

Cutting Back Your Practice?

LARRY E. LEAVERTON
Des Moines

Years ago we encountered problems of "how to build a practice" and "how to attract patients." These problems seldom develop today. As many of these physicians and their practices mature, the question now becomes "How can I limit or cut back my practice?"

In our experience, few physicians, unless they are disabled, want to retire completely, but they do desire more time off, an easier work load, and a more enjoyable practice. The more normal work week is desired.

How can you cut back an active medical practice and still maintain a reasonable standard of living?

- One of the most common ways is to eliminate some segments of the practice. For example, in a busy family practice, obstetrics and pediatrics could be referred.
- The number of patients can be reduced. Don't eliminate new patients however. They may be an enjoyable part of your practice.
- A more rigid control of appointments can be accomplished.
- A reciprocal coverage arrangement can be worked out with colleagues.
- If you are in a locality with an adequately staffed emergency room, it can be used more frequently.
- You can strive to make your practice more efficient, i.e. accomplish more in less time.
- Taking in an associate or joining a group isn't always the answer. The obligation to your associates may force you into working even harder.
- If you are already in a group and want to cut down, lay the facts on the table with your associates. We have seen many examples of damaged relationships in groups where a senior doctor has felt he was entitled to slow down by virtue of his seniority and still retain his earnings percentage. If he wants to work less, his earnings should be adjusted.
- Another route taken by some doctors is to close their office and take a position in teaching, student health, or as a medical consultant to an insurance company.
- The doctor in a good financial position and approaching retirement can re-evaluate his life insurance needs. A good portion of the need for family protection may have passed.
- Some doctors are sacrificing investment and retirement funds by having all of their assets tied up in an expensive residence. A modern apartment or a condominium may fill their needs and eliminate an expensive mortgage payment, property taxes and related maintenance items.

The financial problems a doctor faces start during the period of his education. Unless he receives gifts from relatives, he must borrow money. When he starts practice, furniture and equipment must be purchased. If he joins an established practice he is expected to make an investment. His family, denied many items during the period of education, is eager to use available credit to purchase furniture, a residence, appliances and automobiles. The result is frequently an over-extention of credit which must be paid off during many years of his active practice.

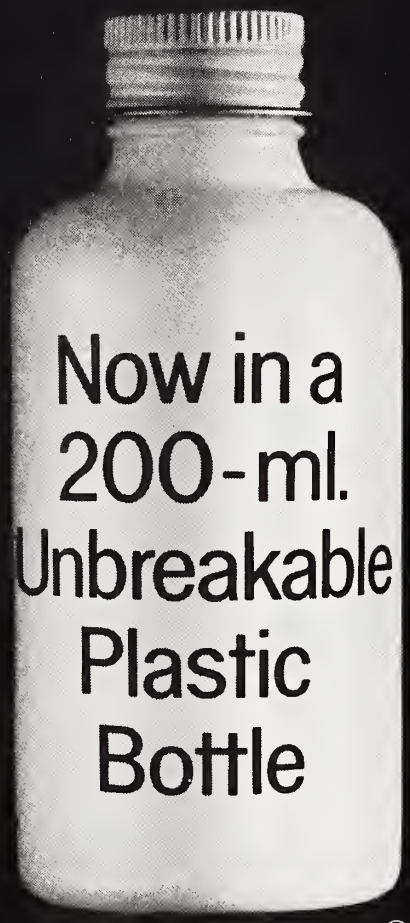
By the time the doctor approaches the age when he wants to reduce his work load these debts and other obligations should be behind him and he should be able to stand a reduction of income. His children should be educated and "out of the nest," his residence should be clear, and he should have a potential monthly income from investments or other non-professional income.

The "hooker" in this situation is the sad fact that too many doctors cannot afford to reduce their practices or think they can't. They approach retirement saddled with debts as a result of overspending or bad investments. They want to cut back and at the same time maintain their present income and standard of living.

The doctor who is still active but planning ahead to the time when he can cut back his practice should do some serious planning. An appraisal of his current financial position may reveal how little is available for partial or full retirement.

Cutting back a practice depends on the doctor's temperament, desires and goals, and what he is willing to sacrifice. It is not easy but it can be done. It takes careful planning and conscientious effort.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.



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Scientific Articles

Management of the Nonhospitalized Patient With Chronic Obstructive Lung Disease

NORMAN G. HEPPER, M.D.
Rochester, Minnesota

ALTHOUGH THE MAGNITUDE of the problem due to chronic obstructive lung disease (COLD) has been variously defined by the United States Public Health Service,[1] most impressive is the increasing frequency with which patients with COLD are being seen in the day-to-day practice of medicine. In a recent survey of male patients 40 years old and older coming to a medical clinic, 20 per cent had abnormal ventilatory tests consistent with obstructive airway disease.[2] The problems these patients present confront physicians in almost all fields of clinical medicine. Despite the great need and despite advancement in our knowledge about COLD in general, significant improvement in therapy has not followed. Furthermore, from our knowledge of this disease process, we can surmise that there likely will never be good treatment for the patient with advanced chronic obstructive airway disease unless transplantation becomes realistic. The major hope for altering this picture lies in prevention and early recognition of chronic airway disease followed by elimination of those factors now thought to be causative. Hopefully, then, the disease process can be arrested before significant disability results and the process becomes self-perpetuating.[3]

Although experiments in screening populations for COLD are under way, the physician is now mainly responsible for the detection of patients with mild COLD. Yet, a recent study showed that the average good medical examination without spirometry missed many patients with mild airway obstruction and even missed patients with severe obstruction. It was also observed that not all patients who report symptoms, particularly young cigarette smokers, are recognized as having chronic bronchitis.[2] Spirometry should routinely be a part of a general medical examination. Having made the diagnosis of mild obstructive airway disease, the physician must define the problem for the patient. Hopefully, this objective evidence of impairment will aid the physician in getting the patient to stop smoking. The patient should understand the need to view infections of the respiratory tract with greater respect and to take measures to speed recovery from such infections. Under certain circumstances, a change of job to avoid exposure to polluted atmosphere may be indicated even at this early stage. Periodic re-evaluation is indicated to note whether the process is pro-

This paper was presented to the Iowa Thoracic Society. The author is a member of the Division of Thoracic Diseases and Internal Medicine of the Mayo Clinic.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF SEPTEMER, 1971.

gressive. If it is, more energetic measures are indicated.

Patients with more advanced COLD deserve a positive and enthusiastic introduction to the best treatment program known at this time. Although we appreciate its limitations, objective evidence is accumulating that the best available treatment can lengthen survival, improve rehabilitation, and reduce hospitalization.[4-6] Less objective are the hope and sense of purpose which a positive program affords these people who are often discouraged and depressed because of their disability and the threat of greater disability.

Before treatment is undertaken, a general medical examination is necessary to evaluate the patient's general state of health for conditions which may alter one's approach to treatment. X-ray examination of the chest is important to help exclude associated malignancy, tuberculosis, and other conditions. Usually, a bacteriologic culture of the sputum is indicated, particularly if it is observed to be yellow or green. A pertinent measurement of pulmonary function is needed to support the diagnosis and to serve as a basis for subsequent comparisons.

The treatment program can be divided into several broad categories, each with a purpose in mind. There obviously is some overlapping. It is most desirable to have the spouse or some other member of the family in attendance when treatment is discussed.

EVALUATION AND ORIENTATION

It is important to spend an appropriate length of time discussing in simple terms the pathophysiology of COLD. Several excellent pamphlets on this subject have been prepared for patients and, if read by the patient before the first consultation, can facilitate this discussion. The length and depth of the discussion should be tailored to the patient's capacity to understand but it has been extremely interesting to note how well some of them comprehend and thus begin to understand their symptoms better. Simple diagrams, pictures of emphysematous lungs, and models can be used to advantage. The large-size paper drinking straws have been especially useful in demonstrating the phenomenon and effect of collapsing tubes. The patient's job should be evaluated as to physical exertion involved and the environment. One of the most difficult occupations in this regard is farming. Whereas exposure to dust from the soil is well tolerated and the farmer can do such work as plowing comfortably, exposure to organic dusts as from grain or hay frequently causes increased symptoms. It is common to learn that the farmer disposed of his hogs several years before having to consult the physician for his COLD because of the acute shortness of breath resulting whenever he would go into the hog barn. If the farmer can delegate work requiring exposure to these dusts, he can continue farming much longer. If a change in job is indicated, I support the patient's request to his company for this, but only if he stops smoking first. Sometimes vocational rehabilitation is indicated to retrain a patient for work he can probably do for an additional number of years.

At this time in the course of the discussion, the goals and limitations of the treatment program should be carefully explained to the patient. Hopefully, treatment will delay progression of the disease, protect the patient against some of the complications and acute episodes of worsening, afford some symptomatic improvement, and occasionally actually improve pulmonary function. The patient should not be allowed to expect great improvement or else he may well become discouraged and abandon all treatment as being useless. Anxiety and depression may be prominent. A positive and optimistic approach by the physician with a precise program of therapy and periodic re-evaluation offers these patients needed encouragement. The judicious use of tranquilizers may still be needed.

REDUCTION OF EXPOSURE TO BRONCHIAL IRRITANTS

Exposure of the chronically inflamed bronchial tree to bronchial irritants perpetuates the chronic bronchitic process, with more mucous formation and further increase in airway resistance. Such exposure must be minimized. It is imperative that the patient stop smoking. The physician must be explicit and positive in this regard. His effectiveness is quite reduced if he himself still smokes. Hopefully, if the facts relating cigarette smoking to the cause of bronchitis are explained and if it is understood that patients with bronchitis who quit smoking fare better than those who continue to smoke, the patient will be sufficiently im-

pressed to quit. Although not a great deal is available to help patients quit smoking, suggestions about pacifiers, chewing tobacco, unlit cigars, deep breaths of air, and so forth may be of help. If the patient does not immediately succeed in quitting smoking, the physician must periodically confront him with the same evidence until he does quit.

The patient undoubtedly is already aware of the effect of exposure to other common bronchial irritants such as dust, fumes, and cold air. The patient can learn to anticipate potential troublesome exposure and thus avoid it, for example, exposure to smoke-filled rooms or recent painting indoors. Second-hand smoke is frequently objectionable to these patients who should not hesitate to request others near them to refrain from smoking. Frosty air is one of the commonest irritants which can be lessened by wearing a cold-weather mask or holding a scarf over the nose and mouth. During the winter season, dry indoor air irritates by drying the respiratory passages. Good humidifiers are now available which can maintain the relative humidity indoors near 30% at least. On the other hand, hot, humid air is oppressive but can be controlled with air conditioning. Even certain odors such as perfume can be objectionable. Cough itself is irritating to the trachea and bronchi and excessive coughing should be avoided. Almost invariably the patient inquires about the value of a change in climate. This question cannot be answered easily. If convenient, moving to a warmer climate for the winter months can be pleasant but it likely does not benefit the disease process. Economic loss from moving is not readily justified and permanent moves should not be made before the area is visited on a trial basis.

CONTROL OF BRONCHIAL SECRETIONS

Excessive bronchial secretion is commonly a feature of patients with COLD and represents a treatable aspect of their disease. The secretions add to obstruction of the airways and may well reduce resistance to infections. Retention of secretions becomes a problem when the degree of expiratory obstruction becomes so great that effectiveness of cough is impaired. Measures to reduce exposure to bronchial irritants decrease mucous formation and some patients who quit smoking will stop coughing and raising phlegm altogether. Control of respiratory infections also reduces phlegm formation. Efforts should be made to alter mucus so as to make it less tenacious. Most effective in this regard is a fluid intake of at least 3 liters per day. The value of expectorants is sometimes challenged but unless iodism or gastric irritation precludes, 10 drops of saturated solution of potassium iodide taken in fruit juice or milk at mealtime is recommended. The value of glyceryl guaiacolate as an expectorant has not been established but it infrequently causes adverse symptoms. The value of *n*-acetyl cysteine as a mucolytic agent has been established but this preparation must be used with some caution in patients with COLD, as it can be irritating. If mucus is tenacious despite adequate fluid intake, *n*-acetyl cysteine can be inhaled with a bronchodilator beginning with a dose of 1 ml. three or four times daily. The use of enzymes and detergents has been abandoned.

Mobilization of mucus can be facilitated if the patient will lie supine after the first bronchodilator treatment and, over a 15-minute period as he repeatedly exhales completely, compress the lower rib cage from both sides. Clapping the chest combined with gentle coughing with the patient in either lateral position is a useful adjunct. This procedure sometimes is more productive a few hours after the patient has been up and around.

If, despite all these measures, retained secretions are still a problem, water aerosols should be tried. Although costly, the ultrasonic nebulizer is most effective and least likely to become contaminated. The patient can sleep with a face tent in place or use the nebulizer several hours a day as he reads or views television. The addition of water to the respiratory tract in this way, although time-consuming, is an effective method of thinning secretions.

CONTROL OF RESPIRATORY TRACT INFECTIONS

The vulnerability of many patients with COLD to respiratory infection, the difficulty they often have in recovering from an infection, and the worsening of their state as a result of infection make this a most important aspect of their treatment. Avoidance of contact with people with colds, avoidance of crowds during the season of frequent respira-

tory infections, avoidance of exposure to inclement weather, adequate rest, and yearly influenza immunization have reduced the frequency of respiratory infections in many patients. Upper respiratory infections should be treated with greater concern than usual.

If there is a flare-up of the chronic bronchitis, therapy with tetracycline in a dose of 250 mg. four times daily or 500 mg. of ampicillin four times daily for 5 days should be started immediately. Most patients do very well by having a supply of antibiotics on hand at all times. A definite change in color of sputum to yellow or green is indication for a course of antibiotics even though the patient may not have the other symptoms of infection. Indeed, sudden worsening without recognizable cause deserves a trial of antibiotic therapy even though there is no change in color of sputum and cultures of sputum are negative.

If there is no improvement after a few days of treatment, the physician should be notified so that he can guide therapy. If there is evidence of a bona fide infection, a bacteriologic culture of the sputum may be indicated and antibiotic therapy altered according to the predominant organism. In this set of circumstances, *Haemophilus influenzae* may be that organism. It usually is controlled with 1 gm. of ampicillin given four times daily for 7 days or with 500 mg. of tetracycline given four times daily and 1 gm. of streptomycin given intramuscularly daily for 5 to 7 days. Sometimes it is desirable to hospitalize such a patient for intensive treatment to bring the flare-up of bronchitis under control more rapidly.

Chronic sinusitis, when present, should receive proper treatment by the otolaryngologist.

BRONCHODILATOR THERAPY

Because increased airway resistance is the most significant physiologic derangement, the main goal of therapy is to reduce this resistance. Many of the aforementioned aspects of the treatment program accomplish this indirectly. Sympathomimetic agents have an inhibitory effect on bronchial smooth muscle and so are used as bronchodilators to reduce airway resistance. Most potent in this regard are the catecholamines, epinephrine, and isoproterenol, which cannot be used orally but are given as an aerosol in the long-term treatment of patients with COLD. Because isoproterenol is occasionally associated with a paradoxical response usually occurring suddenly about a week after regular use of the drug, we have been using 2.25 per cent racemic epinephrine in preference and thus far have not encountered this reaction. The dose of bronchodilator needs to be individualized and should be that amount of drug which produces just perceptible tachycardia or jitteriness. This is usually 10 drops of either 2.25 per cent racemic epinephrine or 1:200 isoproterenol diluted with 5 drops of distilled water or 0.9 per cent sodium chloride solution taken by means of a hand bulb nebulizer over a 10 to 15-minute period. The first treatment should be given immediately upon arising to facilitate clearing of accumulated secretions and to relieve dyspnea during the time when it often is worst. Treatments are usually repeated for a total of four times daily, more often during periods of acute distress. The patient should be instructed to reduce the dose of catecholamine if objectionable tachycardia or shakiness results.

Improper use of a hand bulb nebulizer denies the patient maximal benefit from his time and medication. To effect better drug distribution into the less well-ventilated areas, the patient should exhale as completely as possible and, as he inhales deeply, compress the hand bulb several times. Holding the breath a few seconds at full inspiration assures better deposition of drug. The hand bulb nebulizer is adequate for the patient whose disease is not advanced although the use of an air compressor facilitates administration greatly. In the more advanced stage of the disease, the use of an intermittent positive-pressure breathing (IPPB) device probably improves distribution of the drug throughout the bronchial tree and certainly makes treatment easier. For this purpose, the Hand-E-Vent or the Asthma-Stik has been found to be quite suitable, and because the cost is significantly less than that of the conventional IPPB units we have recommended them to patients earlier in the course of their disease. When an IPPB unit is used to administer the bronchodilator, more water should be added so that the treatment lasts from 10 to 15 minutes. The same practice of periodic complete exhalations should be used.

Metered-dose cartridges of bronchodilator are convenient to carry and patients subject to

TABLE I

COMMONLY USED ORAL BRONCHODILATORS IN TABLET FORM*

BRAND NAME OF DRUG	COMPOSITION OF DRUGS				
	Ephedrine, mg	Theophylline (or derivative), mg	Sedative, mg	Glyceryl guaiacolate, mg	Other, mg
Amesec	25	130	Amobarbital, 25		
Amodrine	25	100	Phenobarbital, 8		
Bronkotabs	24	100	Phenobarbital, 8	100	Thenyldiamine, 8
Dainite	16	100	Phenobarbital, 16		Aluminum hydroxide, 164 Benzocaine, 16
Dainite-KI	16	100	Phenobarbital, 16		Potassium iodide, 320 Aluminum hydroxide, 164 Benzocaine, 16
Luftodil	24	100	Phenobarbital, 16	200	
Lufyllin-EP	16	100	Phenobarbital, 16		
Marax	25	130	Atarax, 10		
Quadrinal	24	130	Phenobarbital, 24		Potassium iodide, 300
Tedral	24	130	Phenobarbital, 8		
Tedral-25	24	130	Butabarbital, 25		
Asbron		150		100	Phenylpropanolamine, 25
Brondecon		200		100	
Choledyl†		200			
Quibron		150		90	
Lufyllin-GG		200		100	

*Most preparations have a liquid form also, to which should be added Elixophyllin (15 ml = theophylline, 80 mg, in 20% alcohol).
† Enteric coated.

acute episodes of wheezing and dyspnea should have one on hand at all times for emergency use. However, for the regular treatments, the use of a nebulizer with a more dilute solution of bronchodilator is preferred. Those containing steroids have no added benefit. The abuse of these units should be avoided. Some patients will take to inhaling from one of these every few minutes and thereby so overuse the catecholamine that it loses its value and may even cause a rebound worsening.

These agents must be used with some caution if significant hypertension or cardiac disease exists. Noncatecholamine sypmpathomimetic drugs can be given orally and act over a longer period but are not as effective bronchodilators as the catecholamines. Ephedrine is the most useful agent and is usually commercially combined with theophylline, which also has some bronchodilating properties, and with a sedative to counteract stimulation of the central nervous system. A listing of commonly available oral bronchodilators appears in the Table. An ephedrine-containing preparation should be used in conjunction with the aerosol bronchodilator and taken orally 2 hours after the aerosol treatments except for the bedtime treatment. This spacing assures an even bronchodilating action throughout the day. If patients are having nocturnal wheezing or cough, a sustained-action oral preparation or a rectal aminophylline suppository can be tried but often it is necessary for the patient to take an aerosol treatment during the night.

Ephedrine may aggravate urinary obstructive symptoms and should be used with caution in the elderly or in those male patients with obstructive symptoms. When this occurs, a xanthine derivative without ephedrine is used (See Table).

PHYSICAL THERAPY

Although objective measurements have not shown convincing benefit from breathing exercises, many of our patients have found breathing control to be useful in overcoming dyspnea more rapidly. This maneuver consists of exhaling against pursed lips while gently contracting the abdominal muscles. The goal is to reduce the airway resistance and to facili-

tate better emptying of the lungs. Much practice is necessary for the patient to learn just how to perform this maneuver so that it becomes helpful. Too many patients do not accomplish this and so do not find the benefit. Patients should also be taught to breathe in rhythm with their walking so that during one or two steps they inhale and during three or four steps they exhale. This emphasizes a quick inspiration and a more prolonged expiration.

Because of dyspnea, many of these patients undertake little physical activity and are in poor physical condition. This adds to their dyspnea and easy fatigability. Graded exercise has been shown to increase the efficiency of muscles so that more work is performed with no greater oxygen consumption.[5, 7, 8] Walking, riding a stationary bicycle, or even isometric exercises should be undertaken daily in gradually increasing amounts. For the very dyspneic patient, oxygen by nasal cannula may facilitate initiation of this exercise program.

SELECTED FORMS OF THERAPY

Intermittent Positive-Pressure Breathing.—There is no good evidence that IPPB by itself is of any significant benefit. It provides a convenient means of administering aerosol bronchodilators in what is probably a more effective manner. The practice of having a patient come to the office or go to the hospital for a treatment now and then is useless and a waste. If IPPB is desirable, the patient should have the device in his home for frequent use each day. The simplified and less costly devices mentioned previously have proven useful thus far. Whether they will last as long as the conventional IPPB device remains to be seen.

Corticosteroids.—Short-term corticosteroid therapy during acute episodes of worsening or respiratory failure may be useful but long-term treatment is rarely advisable. Recognition of that rare patient who might benefit from long-term corticosteroid therapy is difficult but variable bronchospasm not controlled by the proper use of conventional measures may be the clue to try corticosteroids. Certainly, if improvement is not soon obvious, it is imperative that use of the drug be stopped.

Oxygen.—Patients with a preponderance of chronic bronchitis and marked disturbances in ventilation-perfusion relationships often have significant chronic hypoxia which is a big factor in the development of polycythemia, cor pulmonale, and right heart failure. If despite good treatment for chronic bronchitis significant hypoxia persists, extra oxygen by nasal cannula for as many hours of the day as practical can delay further cardiac complications. Before oxygen therapy can be prescribed for such a patient, it is necessary to make certain that extra oxygen does not depress ventilation significantly and to determine the minimal rate of flow which increases the oxygen content of the blood to desirable levels. Because this is costly treatment, flow rates greater than necessary are wasteful. Usually 2 liters per minute suffice. Liquid oxygen and the advantages of its portability are not available to most of us. Conventional oxygen tanks with 20 to 30 feet of plastic tubing enable the patients to store the large K cylinders in the bedroom or closet and yet have oxygen while seated in the living room watching television. Small carts can be constructed for smaller cylinders which allow the patient greater mobility if this is desirable. It is calculated that constant use at a rate of 2 liters per minute would cost about $112 per month just for oxygen. Obviously greater rates of flow would increase the cost proportionately. It is obvious that oxygen therapy of this extent should be advised only after careful appraisal of the situation and the possible benefits. Many times oxygen is used for dyspnea not due to hypoxia and in such instances frequently has only psychotherapeutic value.

Central Nervous System Stimulants.—These have no value in the daily treatment of the nonhospitalized patient.

Surgery.—At the present time surgery might be considered in that rare patient with COLD in whom large bullae are obviously compressing adjacent lung tissue and eradication of such functionless spaces might allow improvement in function of the adjacent compressed units. Other forms of surgical therapy which have been described are not recommended.

MISCELLANEOUS MEASURES

Loss of weight for the obese is most desirable. On the other hand, in patients with advanced disease, weight loss can become a problem and is a serious omen. Some patients develop upper abdominal distress and dyspnea

after eating a normal-sized meal and will do better to eat smaller amounts five times daily. Phlebotomy should be done to keep the hematocrit reading at 55 per cent or below. Cardiac therapy is often necessary and we have learned to be very suspicious of the presence of mild left ventricular failure in a patient who is not doing as well as he usually does. When no other cause is apparent, a trial of diuretic therapy is often rewarding even though overt signs of left heart failure are missing. Discouragement becomes a serious problem in some of these patients as their disease advances and challenges the skill of the physician and worries the family. Manipulation of the treatment program, substitution of different drugs, and supportive office visits offer some hope for the patient. The judicious use of mild tranquilizers may be helpful although sedation must be employed with caution, as acute respiratory failure can result from oversedation.

EMPHYSEMA CLINIC

It is obvious that the time required to instruct a patient fully in a comprehensive program exceeds that available to most busy practitioners. Much of what has been discussed can be accomplished by well-trained and supervised paramedical personnel. An individual responsible for inhalation therapy in the average hospital or a nurse would be a logical candidate for the position of technician-therapist in a hospital-based emphysema clinic. Patients could be sent to such a clinic for instruction, demonstration of equipment and its maintenance, breathing training, or whatever else the physician prescribes. Home visits by such personnel under the supervision of the attending physician might be included in such a service.[9]

Such a paramedical person has been found to be invaluable in the time she can save for the physician and the service she can render the patient.[10] Utilization of such personnel seems mandatory if we are going to care for the rapidly growing number of patients with COLD.

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October Course in Antibiotics and Infection

A three-day course in Antibiotics and Infection will occur October 28-30 at The U. of I. College of Medicine and will involve guest faculty from seven states.

Presentations Thursday, October 28, will include Complications of Smallpox Vaccination, Animal Bites and Rabies, Immunologic Aspects of Recurrent Infections, Diarrhea in Children, Intra-abdominal Sepsis, Meningitis, Tuberculosis, Surgical Infections and Herpes Simplex Infections.

Topics Friday, October 29, will include Endocarditis, Inflammation, Systemic Fungal Infections, The Gonorrhea Pandemic, Urinary Tract Infections, Eye Infections, Septic Shock and Office Microbiology.

Saturday's program will involve participants in infectious disease grand rounds.

Guest faculty will include Fred Allison, Jr., M.D., Professor and Head, Department of Medicine, Louisiana State University; Paul T. Davidson, M.D., Assistant Professor of Medicine, University of Colorado; Nicholas J. Flumara, M.D., Director, Division of Communicable and Venereal Disease, Department of Public Health, The Commonwealth of Massachusetts; Jeanne A. Linquist, M.D., Internal Medicine and Infectious Disease, Pensacola, Florida; John D. Nelson, M.D., Professor of Pediatrics, Southwestern Medical School, Dallas, Texas; Curtis H. Rhoden, M.D., Internal Medicine and Infectious Disease, Wichita, Kansas, and John A. Ulrich, Ph.D., Professor of Microbiology, University of New Mexico.

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NOTE: Not recommended during the acute recovery phase following myocardial infarction. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible. Should not be given to patients who have received an MAOI within two weeks.

Contraindications: Known hypersensitivity. Should not be given concomitantly with or within at least 14 days following the discontinuance of a monoamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl cautiously with gradual increase in dosage until optimum response is achieved. Not recommended during the acute recovery phase following myocardial infarction or for patients under 12 years of age.

Warnings: May block the antihypertensive action of guanethidine or similarly acting compounds. Should be used with caution in patients with a history of seizures or urinary retention, or with narrow-angle glaucoma or increased intraocular pressure. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. Safe use during pregnancy and lactation has not been established; in pregnant patients, nursing mothers, or women who may become pregnant, weigh possible benefits against possible hazards to mother and child.

Precautions: When used to treat the depressive component of schizophrenia, psychotic symptoms may be aggravated; in manic-depressive psychosis, depressed patients may experience a shift toward the manic phase, and paranoid delusions, with or without associated hostility, may be exaggerated; in any of these circumstances, it may be advisable to reduce the dose of amitriptyline HCl, or to use a major tranquilizing drug, such as perphenazine, concurrently.

When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.

How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.

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Further Experiences With a Community Hospital Coronary Care Unit

L. W. SWANSON, M.D.
Mason City

An intensive Coronary Care Unit was opened at St. Joseph Mercy Hospital in Mason City on October 26, 1967 with the aid of a United States Public Health Service grant.* A report on the first year of operation has been published.[1] The grant was renewed for three years (to June 30, 1970) and results of three full years of patient care are reported.

There were 767 patients admitted to the unit during three years (254 the first year, 262 the second year, and 251 the third year). A definite diagnosis of acute myocardial infarction was made in 334 patients, based on at least two of three criteria. The criteria were a good clinical history, recognizable electrocardiographic pattern, and/or an SGOT enzyme level rise to 60 or higher. There were 107 such patients in the first year, 111 in the second year, and 116 in the third year. The over-all mortality in the unit was 9.6 per cent (32 patients), 11.2 per cent occurring during the first year, 13.5 per cent the second year, and 4.3 per cent the third year. Additional deaths on the general medical service after patients were discharged from the CCU increased the mortality to 14.0 per cent the first year, 20.7 per cent the second year, and 7.8 per cent the third year. Thus the overall three-year mortality was 14.1 per cent.

During these same three years 19 patients were treated in the hospital for acute myocardial infarction without being admitted directly to the CCU, and this group had a mortality rate of 47.4 per cent.

The main thrust of the CCU treatment of acute MI is to prevent cardiac arrest, but even so there were 12 during the first year and only four were successfully resuscitated. During the second year 18 arrests occurred and five were successfully defibrillated, and in the third year nine occurred and four were successfully resuscitated, indicating a somewhat lower incidence and better recovery. It is apparent that prevention of cardiac arrest saves many more lives than defibrillation and resuscitation after it occurs. This requires very vigilant monitoring by well qualified personnel in the initial stages of the illness. We are certain that this vigilance by our well-qualified CCU nurses is responsible for the more favorable mortality rate during the third year of operation of the unit.

It is estimated that at least 50 per cent of acute MI patients die before reaching a hospital. With this in mind, the American Heart Association began an educational campaign in 1971 to convince both doctors and patients that acute myocardial infarction is a life and death medical emergency until the patient reaches a medical facility equipped to monitor arrhythmias, and to treat and prevent them where possible.

The Iowa Regional Medical Program, with the approval of the National Advisory Council in February, 1970, began funding a grant to support a test of the usefulness and practicability of a mobile coronary care ambulance in our area to aid patients in reaching an intensive care facility earlier. A Clark-Cortez stand-up ambulance was customized by Snell's Ambulance Service, outfitted with a Corbin-Farnsworth Max Cart for monitoring and a portable battery operated Life-Pak monitor-defibrillator, and stocked with the necessary medications and fluids appropriate to the emergency care of patients with acute myocardial infarction. This ambulance is dispatched to the patient with suspected acute myocardial infarction. After the cardiac rhythm is judged

* Contract PH 86-67-273, Department of Health, Education and Welfare, Public Health Service, Bureau of Disease Prevention and Environmental Control, National Center for Chronic Disease Control.

Dr. Swanson is in the private practice of internal medicine in Mason City. Dr. Swanson's article was prepared in February and the preliminary report on the coronary care ambulance is based on seven months' experience.

to be stable, the patient is transferred to the ambulance for continuous monitoring en route to the hospital CCU, either at Mercy or Memorial Hospital in Mason City. A nurse trained in coronary care is in charge of the ambulance run. She leaves from Mercy Hospital and when not on such trips works in the hospital CCU.

Obtaining and equipping the mobile coronary ambulance and recruiting and training additional nurses required most of the first year. Limited operation began June 18, 1970. Regular ambulance calls in Mason City and at cooperating Bethesda Hospital in Fort Dodge are being used for comparison. The experience with the coronary care ambulance as reported in this manuscript is of slightly less than one year's duration.

No deaths have occurred in patients being transported by the mobile CCU since it began service on June 18, 1970, yet five cardiac patients have died on the way to the hospital in regular ambulances or by private car. These are small numbers of patients over a short period of time, but with this evidence of the safety of transferring patients, smaller hospitals in the area which do not have coronary care units are beginning to transfer patients with acute MI to Mason City coronary care units. No untoward events have occurred thus far in such transfers. It is our hope and expectation that each smaller hospital will have a monitor, a defibrillator and trained personnel to watch patients with newly diagnosed or suspected acute MI until the mobile CCU arrives. Further experience with this project is needed before any definitive analysis can be made, but it appears at this time that the system described for the care of patients with acute MI is practical and beneficial and can be extended to rural areas elsewhere.

SUMMARY

1. Three years experience in a community hospital coronary care unit staffed by specially trained nurses and supervised by staff physicians is reported. This hospital has no full-time house staff.

2. Also reported is the beginning operation of a mobile coronary care ambulance in North Iowa. Experience so far suggests that the mobile CCU will bring patients with acute myocardial infarction under intensive monitored care sooner and thus reduce the present high mortality rate among those who now do not live long enough to reach a coronary unit. It is anticipated that cardiac care in the area hospitals which do not have CCU's can be favorably supplemented by safe transfer to a CCU by means of a mobile CCU. Our continuing experience will be reported from time to time.

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Midwest Medical Meetings

Sept. 17-18	**Wisconsin Regional Scientific Meeting, American College of Physicians,** Green Bay.
Sept. 18	**Annual Methodist Hospital Symposium,** St. Louis Park, Minnesota.
Sept. 24-25	**South Dakota Regional Scientific Meeting, American College of Physicians,** Vermillion.
Sept. 30-Oct. 2	**District VI Annual Meeting, American College of Obstetricians and Gynecologists,** University of Wisconsin Medical School, Madison.
Oct. 4-8	**Postgraduate Course on High Risk Infant Care sponsored by University of Colorado School of Medicine,** Denver.
Oct. 4-9	**Postgraduate Course in Laryngology and Bronchoesophagology,** University of Illinois Medical Center, Chicago.
Oct. 7-8	**Postgraduate Course on Radiologic Technology sponsored by University of Kansas School of Medicine,** Kansas City, Kansas.
Oct. 8-9	**Illinois Regional Scientific Meeting, American College of Physicians,** Peoria.
Oct. 10-15	**Workshop on Clinical Hypnosis and Hypnotherapy sponsored by American Society of Clinical Hypnosis,** Pick Congress Hotel, Chicago.
Oct. 11-13	**Postgraduate Course on Obstetrics and Gynecology sponsored by University of Colorado School of Medicine,** Denver.
Oct. 15-16	**Bryan Days—Selected Endocrine and Metabolic Problems sponsored by Bryan Memorial Hospital,** Lincoln, Nebraska.
Oct. 16-21	**Annual Meeting, American Academy of Pediatrics,** Palmer House, Chicago.
Oct. 19-20	**Postgraduate Course on Medicine and Religion sponsored by University of Kansas School of Medicine,** Battenfeld Auditorium, Kansas City, Kansas.
Oct. 20-22	**18th Western Cardiac Conference,** University of Colorado Medical Center, Denison Auditorium, Denver.

Schedule Pathology Congress

The eighth Congress on Pathology of the Latin American Society of Pathology will be December 5-10, 1971 in Maracaibo, Venezuela. Franz Wegner, M.D., Box 15. 164. Correo las delicias, Maracaibo, Venezuela, may be contacted for further information about the Congress. Benigno D. Faustino, M.D., of Des Moines, is a member of the Pan American Committee of the American Society of Clinical Pathologists.

Prenatal Genetics and Cytogenetics

HANS ZELLWEGER, M.D.,
CHARLES WHITE, M.D., and
ROBERT KRETZSCHMAR, M.D.
Iowa City

PROGRESS IN THE BIOLOGICAL SCIENCES is commonly made when new methods and new techniques are discovered. At times, progress is made when techniques already established are used in a new combination. Prenatal genetics and cytogenetics originated when amniocentesis was combined with such previously well-established methods as nuclear sex determination, chromosomal analysis and various biochemical methods.

A. AMNIOCENTESIS, TECHNIQUE AND HAZARDS

Removal of amniotic fluid from the pregnant uterus has long been known.[1] Its application for the prenatal recognition of Rhesus incompatibility[2, 3] soon became a routine method in many obstetric services although the techniques used to obtain amniotic fluid were not without risks.[4, 5] Amniocentesis per vaginam proved to be more hazardous than the transabdominal route and has been abandoned. Possible complications for the mother include retroplacental hematoma or hemorrhages in the abdominal or uterine walls, into the peritoneal or amniotic spaces, as well as infections of these organs, notably amnionitis. Possible complications for the fetus include needle trauma or hemorrhage, with subsequent anemia, fetal hypoxia (also due to placental separation), fetal death or premature labor. Dangers for either mother or fetus have dropped considerably with the improvement of technical skill. In fact, no complications have been noted in the several hundred amniocenteses performed in our institution for cytogenetics as well as Rh isosensitization and determination of fetal maturity or well-being.

For adequate prenatal genetic counseling, amniocentesis should be done as early as possible. It is not done in our institution before the fourteenth week of gestation. In most instances, we use the time between the fourteenth and sixteenth week of gestation when the fundus uteri is easily palpable above the symphysis pubis and the amnion sac contains between 100 and 200 ml. of amniotic fluid. The procedure is done on an outpatient basis and does not require hospitalization. Ten to 20 ml. of amniotic fluid are removed. The fluid contains cells shed from the fetus and from the amnion. Both cells and supernatant amniotic fluid are used in prenatal genetics. In our laboratory, we have used amniotic fluid cells almost exclusively for nuclear sex and chromosomal analysis. In this presentation, we shall concern ourselves with these two methods, in particular, and their indications. We shall mention briefly inborn errors of metabolism which have so far been recognized prenatally by studying amniotic fluid cells and/or supernatant amniotic fluid.

B. PRENATAL SEX DETERMINATION

Prenatal sex determination was described almost simultaneously by several investigators.[6, 7, 8, 9] These studies were done about seven years after Barr and Bartram[10] had discovered sex chromatin. Riis and Fuchs[11] emphasized the importance of nuclear sexing of amniotic fluid cells for prenatal genetics.

The technique of nuclear sex determination in amniotic fluid cells is not different from that in other cells. Some authors report results of somewhat lesser reliability than those obtained in other tissues. Nelson and Emery[12] found concordance between nuclear sex and phenotype in only 90 per cent of their cases. Nuclear sex determination in amniotic fluid cells proved to be a reliable method in our labora-

The authors are associated with the Departments of Pediatrics and Obstetrics and Gynecology at The U. of I. College of Medicine.

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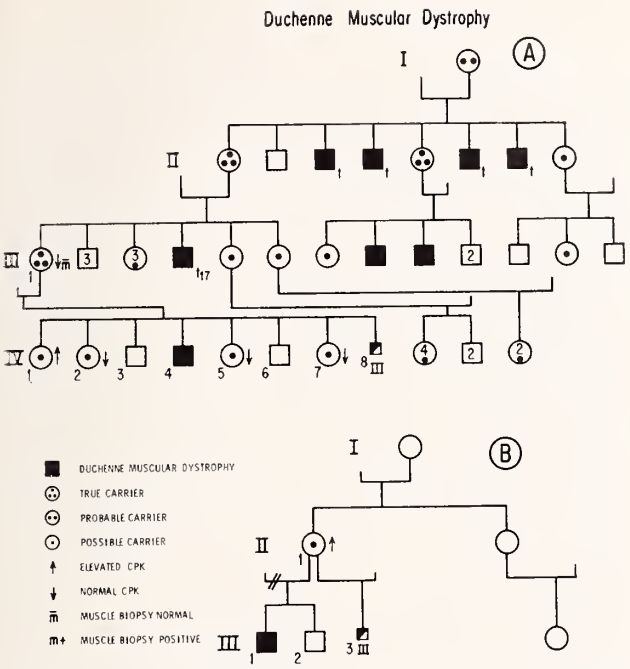

Figure 1. Two pedigrees with Duchenne muscular dystrophy (DMD).

A. III_1 is a proven carrier as shown by the analysis of her family history. She has an affected brother, affected maternal uncles and an affected son. Moreover, a maternal aunt has two affected sons. Interestingly enough, her carrier state could not be recognized by such laboratory methods as serum CPK analysis and her muscle biopsy. Her serum CPK (three determinations) as well as her muscle biopsy were normal.

Prenatal sex determination of IV_8 revealed the fetus to be a male, thus he has a risk of 50 per cent that he will be afflicted with DMD.

B. II_1 has a son affected with DMD. There are no other cases of DMD in the family (no male relatives in the family). The question of whether or not III_1 is the result of a point mutation or of inheritance of the mutant gene, cannot be answered by pedigree analysis alone. However, the mother II_1 has elevated serum CPK and for a DMD carrier, typical alteration of the protein synthetic activity of her muscle ribosomes. These findings are indicative for carrier state. III_3 was found by prenatal sex determination to be a male. Thus, he has a risk of 50 per cent to develop, later on, DMD.

Both situations present a clear indication for eugenic abortion and also for sterilization of the mother.

tory. Among almost 200 prenatal sex determinations, we erred only twice. However, in our laboratory the amniotic fluid contaminated with maternal blood is not used for nuclear sex determination.

Indications for Fetal Sex Determination

Nuclear sexing of fetal cells is indicated whenever the mother is a true or probable carrier of the gene of one of the severe X-linked diseases, such as X-linked muscular dystrophy, severe hemophilia, Lesch-Nyhan syndrome and Lowe syndrome. If the fetus is sex chromatin positive, if in other words, the fetus has two X chromosomes, there is a risk of 50 per cent that the fetus may have inherited the mutant gene. Yet clinical evidence of X-linked disease in such individuals is extremely rare and occurs only when the maternally derived X chromosome (which carries the mutant gene) is metabolically active in the majority of the cells. Possible heterozygosity of a sex chromatin positive individual will become important only when this individual reaches reproductive age.

A sex chromatin negative fetus has a 50 per cent chance that his only X chromosome carries the mutant gene. In other words, the risk to develop the respective X-linked disease is 50 per cent. If the disease in question is one of the previously severe X-linked conditions, termination of the pregnancy is eugenically indicated (Figure 1). In Lesch-Nyhan syndrome, however, it is possible to determine whether or not the fetus inherited the mutant gene.[13] This would allow for saving not only the female offspring but also some of the male offspring.

C. PRENATAL CHROMOSOMAL ANALYSIS

The technique for culturing amniotic fluid cells is similar to that of fibroblasts. Good metaphases can be obtained between the twelfth and twentieth days after adding culture medium to the cells. Results of fetal karyotyping will therefore not be available for two to three weeks after the amniocentesis has been done. In order to guarantee the best possible yield, we have requested so far that the amniocentesis be done in our hospital. We have not worked yet with amniotic fluid shipped to us for fetal karyotyping from other places, although this may be possible if the specimen reaches us as rapidly as possible, perhaps by special messenger. Our technique, which we have published elsewhere,[14] gives excellent results. Our last 20 samples yielded between 20 and 40 metaphases each, with well-identifiable chromosomes. It should be mentioned here however that tetraploid cells are found quite frequently in amniotic fluid cultures, as reported by Milunsky.[14a] One sample studied in our laboratory contained 40 per cent tetraploid cells. The origin of these cells is not clear; it could be they stem from the amnion.

Indications for Prenatal Karyotypes

In theory, prenatal chromosomal analysis is indicated for every pregnancy in view of the high incidence of fetal aneuploidies. It is well-documented that they are found in one of about 20 to 40 zygotes and in more than one in 200 live newborns. The incidence of chromosomal aneuploidies is incomparably higher than that of almost all single gene inherited conditions. Mental retardation may serve as an example to illustrate this point.

There are in the State of Iowa, in round figures, 50,000 livebirths per year. Three per cent of these, namely 1,500, will be mentally subnormal. Single gene inherited conditions account for a few cases only, e.g., two or three cases of phenylketonuria, two or three cases of muscular dystrophy with mental retardation, one or two cases of neurofibromatosis with mental retardation, to name but a few of the more frequent single gene inherited conditions in which mental retardation occurs. The incidence of mental retardation due to chromosomal aneuploidy is much higher. We estimate about 80 mongols, 10 to 15 patients with trisomy 18, 10 patients with trisomy 15, 10 with Turner's syndrome, 60 with Klinefelter syndrome, and 60 with YY syndrome are born each year in the State of Iowa. Mental retardation is not a constant finding of the latter three aneuploidies. Prenatal chromosomal analysis of every pregnancy would allow us to detect them all. Of course, such a task—with present methods—is absolutely out of reach. The cytogenetic laboratory of the Department of Pediatrics at The University of Iowa is able with its present manpower to handle a maximum of 300 examinations a year. There are a few other laboratories in the State in which, at times, cytogenetic analyses are performed. It may be that simplified techniques and automated counting methods will be available in the future. Until that time, we have to limit prenatal chromosomal analyses to women who present a higher risk of having an aneuploid child. We consider as high risk, in this context, a risk greater than 1 per cent (this is in contrast to Mendelian genetics where a risk over 10 per cent is considered as a major risk). Six indications for prenatal chromosomal analysis will be discussed.

1. Maternal Age Over 40 Years

It is well-known that women in their late thirties and forties more often have children with chromosomal anomalies than do younger women. This is true for all autosomal trisomies and for sex chromosomal tri- and tetrasomies. Monosomy X and XXXXY Klinefelter syndrome, however, are not maternal age dependent. The number of hitherto observed X-pentasomic females is too small to allow conclusions with respect to its maternal age dependence. To prevent misunderstandings, it should be emphasized that younger women have aneuploid children as well. More than half of all aneuploid children are born to mothers below 30 years of age, although the relative incidence of aneuploidies is much smaller among the offspring of younger mothers. In the following, we shall concentrate on mongolism as the best-studied of the aneuploidies.

The risk of having a mongoloid child is 1 in 2,300 for mothers under 20 years of age. It is one in less than 100 for mothers over 40 years.[14a] We are presently involved in a study to determine how many Iowa women over 40 years gave birth to mongoloid children in 1967 and 1968. Questionnaires have been sent to all physicians who had signed birth certificates in these years. Preliminary results, with two-thirds of the surveys returned, are: 1 of 66 liveborn infants born to mothers 40 and over was mongoloid, while the mongolism incidence of infants born to mothers 45 years and over was 1 in 21.* Nadler,[14b] reporting on prenatal chromosomal analysis, found karyotypic evidence of mongolism in 2.4 per cent of the specimens obtained from mothers over 40 years. Prenatal chromosomal analysis is thus indicated in pregnant women 40 years and over. The cytogenetic laboratory of the Pediatric Department at the University of Iowa, supported by the State Department of Health, is able to perform this test free of charge for a limited number of high risk women.

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* This study was done by J. Bodensteiner, medical student, and J. Simpson, clinical assistant in genetics, under the supervision of one of the authors (H. Z.). The authors acknowledge the help of John Goodrich, D.D.S., of the State Department of Health, and of many medical colleagues in Iowa who were kind enough to answer the special questionnaires sent to them.

2. Maternal Age of 35 Years With a Previous 21 Trisomic Child

Women who have had a child with trisomy 21 are somewhat more likely to have a second mongoloid child than women of similar age who have not had a mongoloid child. The higher risk of the former may be at least in part related to a genetic tendency to nondisjunction. Presumptive evidence that such a genetic —possibly autosomal dominant—trait exists in rare instances has been presented elsewhere.[15] It can be logically assumed that parents with a previous 21 trisomic child are more likely to belong in this category than parents without a previous mongoloid child. Women between 35 and 39 years of age have a risk of 1 in 290 of having a mongoloid child. Women of the same age with a previous 21 trisomic child may fall into the category of higher risk and thus present an indication for prenatal chromosomal analysis.

3. Pregnant Mongoloids

As far as we know, mongoloid males are not reproductive. Mongoloid girls can be impregnated. Réthoré *et al*[17] collected from the world literature 17 mongoloid girls between 14 and 30 years with one or more pregnancies. Twenty-two pregnancies were observed; one of them produced twins. Twenty of the 23 fetuses reached the end of gestation. Three were miscarried. Seven of the 20 liveborn children were mongoloid. Thirteen were normal. We were able to study the offspring of a 25-year-old mongoloid girl reported earlier by Sawyer.[16] The offspring is a normal female who has a B.A. from our University; she has a normal karyotype. She has two normal children, who likewise have normal karyotypes. The mongoloid mother and her mating partner were not available for chromosomal studies.

Meiosis of the 21 trisomic ovogonium of a mongoloid female leads with a probability of 50 per cent to an ovum with two chromosomes 21 and after fertilization by an euploid sperm to a 21 trisomic zygote. Aneuploid zygotes are often spontaneously aborted, thus it is understandable why the ratio of aneuploid to euploid offspring is smaller than one.

The high probability of mongoloid girls having mongoloid offspring represents a cogent indication for prenatal chromosomal analysis. It would be even more advisable to prevent mongoloid girls from becoming pregnant by conventional contraceptive methods. Prophylactic sterilization is indicated when suitable protection is wanting. (It may be mentioned here that incestuous relationships were responsible for five of the previously noted pregnancies.) Even hysterectomy may be indicated, notably of those mongoloid girls for whom each menstruation is a psychologically traumatizing experience.

4. Parental Mosaicism

Phenotypically normal individuals can have a chromosomal mosaicism with one or several aneuploid clones. The exact incidence of chromosomal mosaicism in the normal population is not known. Mosaicism is usually recognized in a parent after an aneuploid, for instance 21 trisomic offspring, is born. The risk of having further aneuploid children depends on how many of the gametic stem cells are aneuploid. The exact incidence of aneuploidy in gonads cannot be determined. The rate of euploid to aneuploid cells in tissues amenable to chromosomal analysis, such as white blood cells and skin fibroblasts, etc., does by no means reflect on the exact distribution of the various cell populations in the gonad. Therefore, the risk of having aneuploid offspring can not be accurately assessed. Instances have been observed where women with 10 per cent 21 trisomic cells in the peripheral blood had three trisomic offspring in a row.[18] Parental mosaicism with an aneuploid, notably 21 trisomic clone, was considered as an indication for birth control until prenatal chromosomal analysis became available. Nowadays, further reproduction may be considered provided prenatal karyotyping can be performed.

5. Familial Translocation

In translocation mongolism, major parts of a supernumerary chromosome 21 are fused with a G or a D chromosome, rarely with parts of a nonacrocentric chromosome. About one half of the cases of D/G translocation mongolism are sporadic. The remaining translocation mongoloids have one parent—father or mother —with the same translocation in balanced form. It may be found in other members of the family as shown in Figure 2.

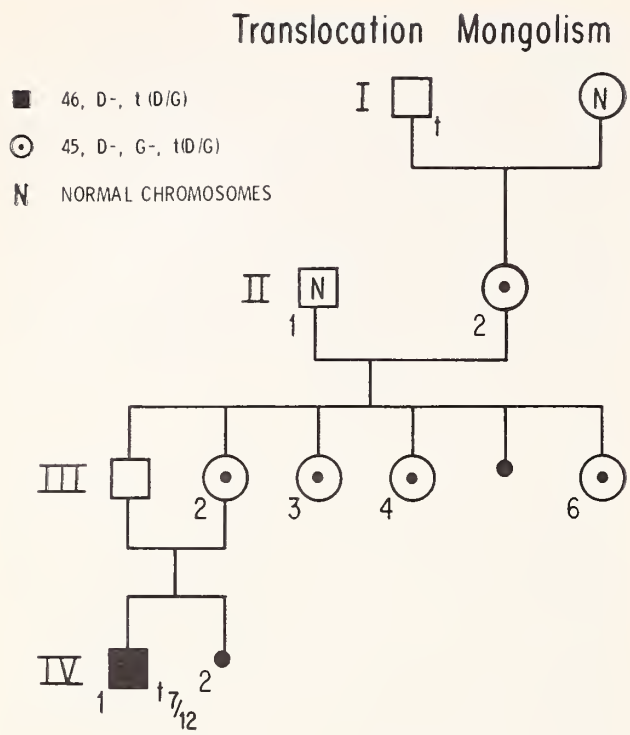

Figure 2. Familial D/G translocation.

III_2, at the age of 27 years, had a mongoloid child (IV_1) with a D/G translocation. Chromosomal analysis of III_2 revealed a balanced D/G translocation. A similar balanced translocation was found in her three sisters, III_3, III_4, and III_6, as well as in her mother II_2.

A year after IV_1 was born, the mother was again pregnant (IV_2). The empirical risk of IV_2 to be mongoloid is about 10 per cent, thus prenatal chromosomal analysis appeared to be indicated. However, spontaneous abortion occurred before an amniocentesis was performed.

The risk of a parent with a balanced 21/21 translocation having a mongoloid child is 100 per cent. Zygotes which do not carry the translocation are monosomic for chromosome 21 and are not able to live. Therefore an individual with a balanced 21/21 translocation is inept to have normal children and sterilization is indeed indicated. However, it should be said that with present optical means, 21/21 and 21/22 translocations cannot be distinguished from each other except with the fluorescence microscope.[19] The 21/22 translocation has a risk similar to that of balanced D/G translocation.

The pregnancy of a mother with a balanced 21/22 or 15/21 (D/G) translocation carries an empirical risk of about 10 per cent to end with the birth of a mongoloid child. The risk is less than 10 per cent if the father carries the translocation. Nevertheless, these risk figures are high enough to warrant sterilization of the translocation carrier. In case of pregnancy, prenatal chromosomal analysis is certainly indicated.

6. Increased Satellite Association

The satellited ends of the acrocentric chromosomes 13-15 and 21, 22, have a tendency to be close together in the metaphase plates. This is called satellite association. A small number of satellite associations are considered as a normal phenomenon. Increased satellite associations were found in the parents of some of our sporadic and familial cases of translocation mongolism. It was also found in rare 21 trisomic mongoloids[21, 22] and with lesser frequency in their parents.[23, 24, 24a] Zang and Back failed to confirm the latter observation. The significance of increased satellite associations is not yet clear and needs to be studied further. For the time being, we believe that increased satellite association in a parent, notably if found in several karyotypes done at different times, suggests a possible increased risk of aneuploid offspring; thus prenatal chromosomal analysis is indicated.

D. PRENATAL DETECTION OF INBORN ERRORS OF METABOLISM

Fresh amniotic fluid cells as well as cultured amniotic fluid cells have been used to detect a number of inborn errors of metabolism. Tay-Sachs disease has been diagnosed by the discovery of the underlying enzyme deficiency in the fresh sedimented amniotic fluid cells, and in the supernatant amniotic fluid. O'Brien *et al*[25] recently reported intrauterine diagnosis of Tay-Sachs disease or GM_2 gangliosidosis in six cases. The diagnosis was confirmed in all cases by finding either increased cerebral GM_2 deposits or by the absence of hexosaminidase A in various tissues of the aborted fetus or the affected infant. In one case, intermediate hexosaminidase levels were obtained in uncultured cells, suggesting heterozygosity. The latter was confirmed by postpartum examination of blood.[26]

Pompe's disease or glycogen storage disease Type II has been diagnosed prenatally on several occasions[27, 28, 28a] by discovering absent acid maltase in the supernatant amniotic fluid, in cultured and noncultured amniotic fluid cells.

Hexosaminidase A and acid maltase deficiency are the only two enzyme deficiencies which so far have also been detected in the supernatant amniotic fluid.

Enzyme deficiencies which have been discovered by assaying cultured amniotic fluid cells are listed in Table 1.

TABLE I

INBORN ERRORS OF METABOLISM WHERE THE PRENATAL DIAGNOSIS BY ENZYME ASSAY OF CULTURED AMNIOTIC FLUID CELLS HAS BEEN MADE

Disease	Deficient Enzymes in Cultured Amniotic Fluid Cells
Tay-Sachs	Hexosaminidase A
Metachromatic Leukodystrophy	Arylsulfatase
Niemann-Pick	Sphingomyelinase
Hurler	Specific Beta-galactosidase
Maple Syrup Urine	Branched chain Ketoacid decarboxylase
Pompe	Alpha, 1-4, glucosidase
Galactosemia	Galactose, 1, Phosphate-Uridyl transferase
Lesch-Nyhan	Hypoxanthine-guanine phosphoribosyl transferase
Lysosomal acid phosphatase deficiency	Lysosomal acid phosphatase
Fabry	p-Nitrophenyl-a,D-galactopyranidose
Methylmalonic aciduria	Methymalonyl-CoA-mutase

Some inborn errors of metabolism can be diagnosed by the discovery of abnormal amounts of catabolic products in the amniotic fluid, for example, methylmalonic aciduria, adrenogenital syndrome, as well as mucopolysaccharidosis.

Methylmalonic aciduria has been recognized during pregnancy by finding increased amounts of methylmalonate in the urine of the mother and in the amniotic fluid. In this disease, methylmalonate is found in excess because the conversion of methylmalonate Co A into succinyl Co A is blocked by the underlying enzyme defect. Abnormal amounts of methylmalonate can be detected only at a rather advanced stage of pregnancy (25 weeks) which, of course, excludes therapeutic or preventive abortion.[29] Also the adrenogenital syndrome can be diagnosed only late in pregnancy, either by the detection of increased amounts of 17-ketosteroids and pregnanetriol in the amniotic fluid[30] or by increased estriol excretion in the urine of the mother.[31] However, amniotic fluid studies done by New (1970) did not confirm the results of previous authors.

Matalon *et al*[32] were able to diagnose Hurler's disease in the third month of gestation by the discovery of increased amounts of dermatan and heparan sulfate in the amniotic fluid. Previous authors[33] have indicated that Hurler's and Hunter's diseases can be diagnosed by the presence of metachromatic granules in the cultured amniotic fluid cells. This is, however, not a specific finding since methachromasia is also found in the amniotic fluid cells of cystic fibrosis patients and of normal fetuses.[34, 35]

Prenatal diagnosis of inborn errors of metabolism is just beginning. It is expected a great number of other inborn errors will become detectable in prenatal life, since normal enzyme levels have already been determined for many of them. In most instances, notably in X-linked and autosomal recessive conditions, the previous occurrence of the disease in a relative, notably an offspring, will draw attention to the presence of that mutant gene in a given family. If a couple has already had a child affected with a severe inborn error of metabolism, prenatal enzyme studies are indicated. If another relative is affected, investigation of heterozygosity of the mother (in the case of an X-linked disease) or of both parents (in the case of autosomal recessive disease) should precede the diagnostic amniocentesis.

E. ECONOMIC SIGNIFICANCE OF PRENATAL CHROMOSOMAL ANALYSIS AND SEX DETERMINATION

It has been mentioned already that at present only high risk pregnancies can be considered for prenatal chromosomal analysis, and even this presents difficulties since not more than a fraction of the high risk pregnancies can be studied by the presently available cytogenetic laboratories in Iowa. We estimate that about 1,100 high risk pregnancies occur per year. Amniocentesis of these cases would require the addition of one physician and one nurse to the obstetric staff. The chromosome analysis of the 1,100 samples of amniotic fluid would require 8-10 laboratory technicians, as well as laboratory space and equipment for these technicians. The cost of the equipment for such a laboratory (provided laboratory

space was available) would require about $100,000. Estimating the cost for one chromosomal analysis at $200, the operational budget would amount to $240,000 per year.

What would be the benefit of such an operation? By karyotyping all high risk pregnancies, about ⅓ to ⅖ of all chromosomal aberrations could be discovered. Tentatively 25 to 30 cases of mongolism alone could be recognized in utero and prevented if a eugenic abortion was feasible. Neel[36] recently estimated the cost of one mongoloid at $180,000. Prevention of 25 mongoloids, would, therefore, lead to an economy of several million dollars. Even if this figure is somewhat high considering the short life expectancy of some mongoloids, considerable economies for the State and its population could be made, more so since other chromosomal abnormalities could be avoided as well.

The value of prenatal sex determination is more difficult to assess. Our heterozygosity studies of X-linked muscular dystrophy have shown that the mutant gene may be present and even widely distributed in a family in hidden form. It will become apparent only if a male family member inherits the mutant gene.

Figure 3 shows a sporadic case of Duchenne muscular dystrophy. By studying serum enzymes and muscle biopsy, four female carriers

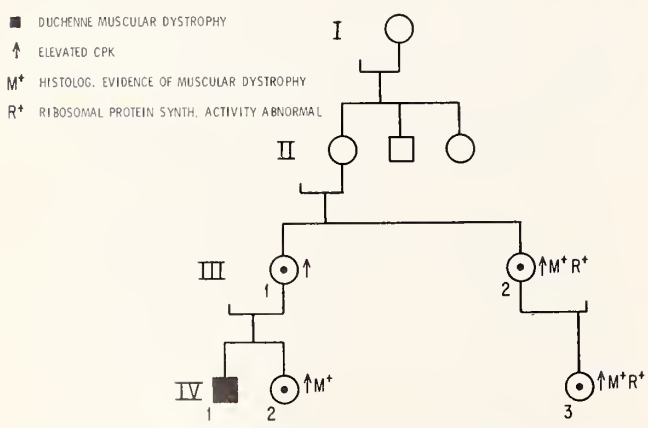

Figure 3. Sporadic case of Duchenne muscular dystrophy with four relatives (III_1, III_2, IV_2, IV_3) being carriers of the mutant gene. This is a sporadic case and therefore could represent a point mutation. The carrier state of his relatives was proven by elevated serum CPK (in all four females) by light microscopic evidence of muscular dystrophy in the muscle of three of them (in III_2, IV_2, and IV_3) and by an altered ribosomal protein synthetic activity in vitro compatible with carrier state of DMD in III_2 and IV_3.

In case of pregnancy, prenatal sex determination should be done, since a male fetus would have a risk of 50 per cent to have inherited the DMD. Sterilization of the three adult carriers is indicated. IV_2 is only 10 years old, thus sterilization would be postponed to a later date.

were detected. The likelihood of these females having affected sons makes strict contraception or even sterilization advisable. Prenatal sex determination is indicated if pregnancy should occur before or in spite of contraceptive measures.

F. BIOLOGICAL SIGNIFICANCE OF SPONTANEOUS ABORTIONS

It becomes quite clear from all that has been said so far that prenatal genetics and prenatal cytogenetics are of paramount importance for the prevention of disease, if the previous enumerated indications for eugenic abortions are ethically and legally accepted. Much has been written pro and con regarding the liberalization of abortion laws. It is not the intention of the authors to enter into this often emotionally loaded discussion. We would like, however, to present here, a biological consideration of spontaneous abortion. Chromosomal analysis of spontaneously aborted fetuses has shown that between 25-40 per cent of them show a chromosomal aberration. About 10 per cent of all pregnancies end in a spontaneous abortion. From these figures, it can be estimated that one in 25 to 40 zygotes has an abnormal karyotype, while the incidence of chromosomal aberrations in liveborn infants is only 1 in 200. This difference suggests that most chromosomal aneuploidies are spontaneously aborted, in other words, nature itself eliminates the abnormal fetus. Less than 25 per cent of 21 trisomic fetuses and less than 10 per cent of the fetuses with either monosomy X, trisomy E, or trisomy D, reach the end of gestation. Almost all polyploidies and autosomal monosomies are spontaneously aborted. Nature apparently eliminates fetuses with a chromosomal aberration and perhaps also other severely damaged fetuses. Only a few are carried to the end of gestation, namely those who escape this regulatory principle of nature. The physician who eliminates such cases by eugenic abortion does nothing more than correct this oversight of nature.

SUMMARY

Prenatal genetics and cytogenetics have progressed significantly in the last few years and have added a new dimension to medical genetics. So far genetic counseling has been limited to the time prior to conception by preventing reproduction of pathogenic gametes.

The introduction of the new methods described in this article has extended genetic counseling into the early postconceptional period with potential elimination of abnormal zygotes.

Nuclear sex and karyotype of the fetus can be determined nowadays shortly after the beginning of the second trimester of gestation.

Nuclear sexing of fetal (amniotic fluid) cells is indicated if the expecting mother is a known conductor of one of the severe X-linked diseases such as Duchenne type muscular dystrophy. In such instances, male offspring carry a risk of 50 per cent of becoming afflicted by the respective X-linked disease. This indication is rather infrequent, occurring not more often than a few times in 50,000 live births.

Prenatal chromosomal analysis is indicated when the expected risk of the fetal aneuploidy is greater than 1 per cent. This may be found in about two out of 100 pregnancies; mothers aged 40 years and over represent the most frequent indications.

Most cytogenetic laboratories, at present, are not equipped to cope with such work loads. However, if the cytogenetic laboratories adjusted their capacity to this task, it would be possible to recognize and ultimately prevent a goodly number (about 30 per cent) of all mongoloids and also other aneuploids in early pregnancy. This, of course, is possible only if the biologically unsound legal barriers against eugenic abortion are removed. It has been shown that fetal aneuploidy occurs with 5 to 10 times greater frequency than neonatal aneuploidy, suggesting that, as a rule, aneuploidies are eliminated by spontaneous abortion and that survival of fetuses to the end of gestation is an exceptional event, perhaps an oversight of nature, and for which correction must become a new task of the physician.

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An Evaluation of Transaxillary Removal of Cervical and First Rib

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Cervico-axillary canal compression syndromes have been well described[1, 2, 3] and their treatment by scalenotomy,[1] cervical rib resection and first thoracic rib removal[2, 3] has been advocated. Possible compression mechanisms include "Scalenus anticus syndrome," elevation of the first rib by a cervical rib or Scalenus anticus muscle, cervical rib interposition between neurovascular structures and first rib, abnormal first rib and narrowed costoclavicular space.

The concept of the cervico-axillary canal as a quadrilateral space[2] bounded by clavicle above, first rib and cervical rib—first rib articulation below, Scalenus anticus anteriorly and Scalenus medius and cervical rib posteriorly has particular merit if considered in the outlining of appropriate surgical enlargement of the canal. Surgical technics were at first directed toward enlarging the anterior-posterior confines of the canal by dividing the Scalenus anticus muscle and by removing the cervical rib if it existed. Subsequently, first rib removal was carried out arbitrarily[3] or if the costoclavicular interval was demonstrably narrowed.[2] Claviculectomy has a limited place in the management of cervico-axillary compression[4] because some degree of deformity and disability is inevitable with absence of the clavicle. Clagett has advised the routine removal of the first rib in all operations designed to relieve cervico-axillary canal compressions.[3] It seems to us that adequate enlargement of the cervico-axillary canal can be assured only by resecting both cervical rib (if present) and first thoracic rib.

TECHNICAL CONSIDERATIONS

Removal of cervical and first ribs may be carried out through anterior (supraclavicular), posterior (parascapular) or lateral (transaxillary) approaches.

The anterior approach allows for direct evaluation of the costoclavicular interval and provides exposure of the subclavian artery. With this approach the subclavian artery and the trunks of the brachial plexus must be retracted to provide access to cervical and first ribs. Traction upon neurovascular structures must be limited to avoid injury. As a result, exposure is limited in the depths of the incision. In our experience with this operative approach, the only significant postoperative complication encountered has been occasional temporary winging of the scapula due to long thoracic nerve trauma. No instances of pleural tear with pneumothorax have occurred. The resulting scar in the supraclavicular fossa has a tendency to widen and is not easily concealed by some varieties of clothing, particularly in women. Paresthesias and scar tenderness were sometimes troublesome but were not disabling.

We have not had personal experience with the posterior (parascapular) approach which is quite like the approach for first-stage thoracoplasty.[3] The posterior approach permits easy exposure of and removal of cervical and first ribs but does not provide much exposure of the subclavian artery. The resulting scar is cosmetically undesirable.

The transaxillary (lateral) approach as advocated by Roos[5, 6] provides adequate exposure of first and cervical ribs through an incision which results in a scar with minimal cosmetic deformity (Figures 1 & 2). Exposure of the

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At the time of this article's preparation, the authors were associated with the Surgical Service, Veterans Administration Hospital and the Department of Surgery, University of Iowa College of Medicine. Dr. Staab remains in that capacity, Dr. Petersen has transferred to VAH, Cheyenne, Wyoming, and Dr. Brintnall died recently.

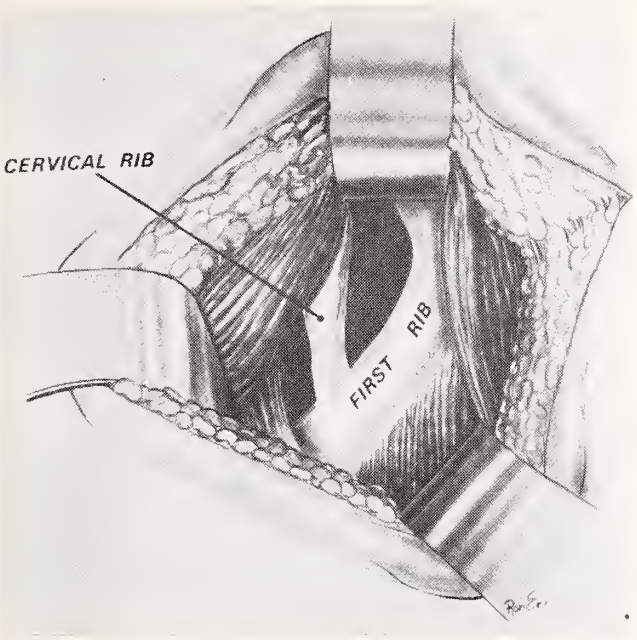

Figure 1. Artist's drawing of operative exposure of first and cervical ribs through an axillary incision.

Figure 2. Healed axillary incision following transaxillary removal of left first rib, patient L.J.B.

subclavian artery is limited and is considered inadequate for operations upon the vessel. This approach seems particularly desirable in women who desire an inconspicuous scar which can be concealed easily.

CLINICAL OBSERVATIONS

Five patients have had six operations for transaxillary removal of first or first and cervical ribs at the Veterans Administration Hospital in Iowa City, during the period from October 1967 to February 1969 (Table 1). Costectomy was indicated by symptoms and signs of vascular deficit in the upper extremity produced by exercise or shoulder position. Aching, coldness, fatiguability and loss of grip with exercise were frequent complaints. Usually, certain neck or shoulder positions caused diminution in the volume of the radial pulse and occasionally resulted in obliteration of the radial pulse. Arteriography was not utilized in the preoperative evaluation of these patients,

TABLE I

SUMMARY OF EXPERIENCE WITH TRANSAXILLARY COSTECTOMY

TRANSAXILLARY COSTECTOMY

		Resected	Date	Pleur. Op.	Wing. Scap.	Result
L. J. B.	(25)	Lt. 1st & Cerv.	10-3-67	+	Temp.	Exc.
		Rt. 1st & Cerv.	2-26-69	+	No	Exc.
R. D. D.	(27)	Rt. 1st rib	10-24-67	0	Temp.	Good
D. W. A.	(57)	Lt. 1st & Cerv.	3-19-68	0	No	Exc.
C. J. H.	(42)	Rt. 1st rib	3-13-68	+	Temp.	Good
A. T. H.	(49)	Lt. 1st rib	1-24-68	0	Temp.	Good

with one exception. Usually arteriography is not required for accurate diagnosis. Roentgenograms were not helpful in the measurement of the costoclavicular interval but were of value in the demonstration of cervical ribs. Roentgenograms reveal first rib abnormalities.

Adequate exposure of cervical and first ribs by the transaxillary approach is attained only with strong elevation of the arm and scapula. This traction does not seem to place any significant stress upon subclavian vessels or brachial plexus trunks.

Complications incident to transaxillary removal of first or first and cervical ribs included pleural laceration in three instances and temporary winging of the scapula in four instances. Pneumothorax incident to pleural lacerations was treated by immediate aspiration of air. None recurred. Scapular winging proved to be temporary. Interestingly, patients were usually not aware of the presence of "winged scapula." Electromyography was utilized to indicate the incomplete and temporary nature of the Serratus anticus denervation.

Postoperative evaluation of the patients was over a two to six month period following operation. Results of the procedure are classified as excellent if all objective and subjective evidence of the disorder disappeared and good if a symptom or sign of minor significance had not cleared completely (Table 1).

SUMMARY

Transaxillary removal of first or first and cervical ribs was performed in six instances during an 18 month period. The approach afforded adequate exposure for the procedure. Relief of cervico-axillary compression was attained. Complications were mild and temporary. The cosmetic results impress us as being better than those of the supraclavicular and parascapular approaches.

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Editorials

"MORTUI VIVIS PRAECIPIANT"

(Let the dead teach the living)

Will the decrease in postmortem examinations affect the education of new physicians? Is the new physician becoming more interested in social forces affecting health and more inclined to examine society? Some have suggested the autopsy is much less important in medical teaching now because the morphological patterns of disease have been established. The conventional methods of examination are said to be inadequate in relation to the complexity of medical science.

Several decades ago skilled pathologists conducted autopsies in a formal academic manner with attending physicians, interns and students and discussing thoroughly the clinical aspects of the disease in relation to the findings as the dissection progressed. The percentage of autopsies done in a given hospital at one time represented an important means of measuring the quality of the teaching program. If this measurement were as strongly considered today many excellent hospitals would be considered poor.

A recent editorial in the BRITISH MEDICAL JOURNAL (April 24, 1971) takes the pathologist to task, in part, "for the decline of the necropsy." There is concern as to whether the art of dissection has deteriorated. The question is asked if the glamour of modern advances in such progessive subjects as biochemistry, virology and immunology have tempted the clinician to pay less importance to morphological pathology. The pathologist is always in a unique position to stimulate discussion. It is suggested that rapid frozen sections could be made at the time of the dissection to add to the value of the teaching experience. The clinician could then correlate the clinical course with the findings as they are revealed in the postmortem room.

The American Hospital Association has produced a manual on *Postmortem Procedures* which sets forth principles and guidelines for the autopsy. A review is presented of the interest the Association has had in fostering a good autopsy.

The autopsy offers the last opportunity for complete evaluation of disease states. The intense interest in the molecular level of disease and health can be augmented by postmortem studies of the cellular change, as well as biochemical analysis of the tissues. The challenge is offered that the postmortem examination must be more thorough—that to simplify autopsy procedures is a step backward in the world of scientific medicine. For example, through postmortem examination the relationship of blindness to retrolental fibroplasia was discovered, and then correlated clinically with the high concentration of enviromental oxygen provided to premature infants.

I alluded earlier to the interest young physicians have in society and its impact on health and disease. I do not discount this concept, but it can be taken a step further. The intense interest in ecology (the effects of pollution and chemical contaminants) can be studied in the postmortem examination. Through tissue analysis the words "may" and "possibly" may be deleted with substantiating evidence that certain chemicals are truly harmful to humans. Of course, some hospitals have budget restrictions which forbid extensive biochemical

studies of tissue, but more affluent centers should include some of these studies in the routine autopsy procedures.

The autopsy percentage in some of Iowa's larger hospitals is only 40-50 per cent—even less in smaller hospitals. Are we interested in raising this percentage, making the examination more complete, and making the autopsy more meaningful? Truly the living may learn much from the dead.

BELL'S PALSY AND DIABETES MELLITUS

An article* on Bell's palsy and diabetes mellitus by Korczyn of the Neurology Department at the Tel-Aviv University Medical School, Israel, deserves the special attention of clinicians. In a series of patients presenting with Bell's palsy the author found a surprisingly high incidence of diabetes mellitus. This finding prompted a recommendation that any patient with this neurologic deficit undergo a glucose tolerance test.

The author points out that Bell's palsy is a rather common nervous disorder of unknown etiology. It has been ascribed to vascular, inflammatory and immunologic factors, and it has been recognized that the syndrome is unusually common among diabetics. However, the frequency of diabetes among patients with Bell's palsy has not heretofore been reported.

The study comprised 130 consecutive, non-selected patients referred to the hospital for the treatment of Bell's palsy. If more than 10 days had elapsed since the onset of symptoms the case was excluded from the study. In addition to thorough physical and laboratory studies a glucose tolerance test was carried out on each patient. Blood samples were procured before and after an oral load of 50 gm. glucose and tested by the glucose-oxidase test. A patient was considered to be a diabetic if the fasting blood sugar was above 130 mg. per 100 ml. on two separate occasions, or when the glucose level had not fallen below 120 mg. per 100 ml. two hours after the ingestion of the glucose load in the glucose-tolerance test. If the patient had been receiving corticosteroids the test was deferred for a month after cessation of therapy.

Among the 130 patients, 18 were known diabetics, only one of whom needed insulin therapy. Overt diabetes mellitus (fasting blood sugar above 130 mg. per 100 ml.) was demonstrated in another 8 patients, 3 of whom required oral diabetic therapy. Among the 104 patients with a normal fasting blood sugar, 62 had an abnormal glucose-tolerance test, which brought the number of diabetics, as defined by the author, to 88. Thus the incidence of diabetes in the total group of 130 patients with Bell's palsy proved to be an unusually high 66 per cent.

The author points out that diabetes is more common in the general population than is usually realized. Some surveys, using methods similar to those employed in the Tel-Aviv hospital, show an incidence of 12 to 14 per cent. Differences in criteria for diagnosing diabetes mellitus and the tendency for glucose levels to be high in elderly patients make interpretation and comparison difficult. However, the frequency of diabetes in patients with Bell's palsy, compared with the results of a survey of "healthy" population, leaves no doubt that patients with this neurologic disorder, as a group, have a decreased sugar tolerance.

In a discussion of the subject, Dr. Korczyn ascribes the sudden onset of Bell's palsy in the diabetic to vascular disease which may accompany subclinical metabolic disorders, and may in fact precede them by many years. He states that the vascular manifestations are thought to be independent of the metabolic disorder. An additional etiologic factor may be vasoconstriction, for many patients with Bell's palsy give a history of exposure to cold on the affected side.

In his conclusion the author says it appears that Bell's palsy is a syndrome resulting from ischemia of the facial nerve. The ischemia may be the result of anatomical changes in the arterial wall, physical causes such as cold and pressure, and intravascular sludging or throm-

(Please turn to page 559)

Korczyn, A. D.: Bell's palsy and diabetes mellitus. LANCET, 1:108-109, 1971.

Editorials continued...

bosis. The nerve may be particularly vulnerable because of few anastomoses, and because of passage through the bony canal of the petrous portion of the temporal bone. In this confined space edema secondary to ischemia or inflammation may result in further vascular damage. The author emphasizes that a diabetic etiology is suggested in many cases, and from his experience he urges that any patient presenting with Bell's palsy should have his glucose tolerance investigated.

SEXUAL ACTIVITY AND CERVICAL CARCINOMA

Adequate treatment of cervical carcinoma has preceded an understanding of its etiology. Investigation in two independent areas, epidemiology and virology, now suggests a possible etiologic factor.

A correlation between sexual activity and cervical carcinoma has long been suspected. Epidemiologic studies have shown it to be rare in celibate women, more common in married than single women, more prevalent in promiscuous women, and four to six times more frequent in prostitutes.

The significance of variable sexual factors in the etiology of cervical carcinoma has been evaluated by statistical methods, and one has been shown to be significant: Early age at first coitus. During adolescence, the cervix undergoes considerable histologic alterations. This period of transition may be a time of heightened susceptibility to a venereally spread carcinogen.

The only known infectious agent that (a) meets the epidemiologic criteria, (b) is spread venereally, and (c) infects the genitalia of both sexes—is the Herpes virus. The etiologic role of Herpes viruses in animal malignancies has been demonstrated, and their role in human malignancies suggested. Two serologically and antigenically distinct classes of Herpes virus Hominus have been identified: Type 1 and Type 2.

Type 1 HVH is the causative agent in Herpes labialis (cold sore) and antibodies appear early in life. By five years of age, 40 per cent, and by 35 years nearly 95 per cent of individuals have detectable antibody titers.

Type 2 HVH infection is limited mainly to the genital organs and affects both sexes. A recent study showed an eight-fold increase over the anticipated number of cases of cervical carcinoma in women whose husbands had penile carcinoma. Furthermore, women who have had Herpes infection in the cervix are more likely to develop cervical carcinoma.

Antibody to Type 2 HVH, in contrast to Type 1, appears during adolescence when many females start sexual activity. The incidence of titers to Type 2 is about 20 per cent of women at age 35 and remains at that level. Nearly 100 per cent of women with cervical carcinoma had positive titers with a steady progression from dysplasia through in situ carcinoma.

This correlation by no means proves a causal relationship and considerably more work must still be done. For the first time, we have a working hypothesis: the virus, introduced by the venereal route, acts on the susceptible cervix. The virus is incorporated into the nuclear material and can initiate a chain of intracellular events, with malignant transformation, culminating in invasive cervical carcinoma.—HERBERT J. BUCHSBAUM, M.D., *Department of Obstetrics and Gynecology, University of Iowa.*

SCHOOL DAYS . . . SCHOOL DAYS

School's started. There are 145 freshman medical students (86 per cent are Iowans) launching their medical studies this month at The U. of I. To them, and to their 440 upper-class colleagues, the Iowa Medical Society extends good wishes for a successful academic year.

Annus mirabilis!

American Association of Medical Assistants

State of Iowa, Inc.

Care With Patient Records

With our population constantly on the move, there are many requests for medical record transfers. Patients ordinarily do not keep adequate medical records, and they must be sought from the attending physician. A document so confidential as a medical record must be safeguarded from unauthorized inspection; therefore, the physician and his medical assistant should set up definite release standards. An authorization signed by the patient (preferably witnessed) should be obtained. This should be signed by a person of legal age and of sound mind. In the case of minors, the authorization should come from parent or legal guardian.

Schools require verification of children's immunization records and medical history before entry. We have many requests from Selective Service for information, from Social Security Administration, welfare agencies, insurance companies, etc.

A short abstract of the patient's record is of more help to the physician or third party than the actual photocopy of the medical record. This abstract should include pertinent data regarding past illnesses, family history, and the treatment provided by the physician transferring the data. Laboratory data, X-ray and electrocardiographic reports are also of value. Because information sent to insurance companies and government agencies will often be viewed by many different people, care should be taken in the transmission of data. A photocopy of the patient's complete record may contain confidential information which may or may not be relevant for transfer purposes. Such transfer of information should be personally supervised by the physician in charge, as he is liable for all material released.

Accurate records are invaluable to the physician. A continuing education program in this area is available to medical assistants who like to study at home. Assistants may improve their terminology vocabulary by taking the medical transcription course via cassette tapes. Enrollees who complete the course receive a certificate of completion and should be able to transcribe most medical documents with professional skill. For information on this training, write the American Medical Record Association, Correspondence Education Department, 211 East Chicago Avenue, Chicago, Illinois 60611.

We hear much about automated medical records in hospitals. Electronic data processing is moving into clinical areas and is producing computerized master patient records containing all necessary medical history data. In a specific community all residents are a part of the master file. There will, of course, be varying degrees of illness among these residents ranging from *no apparent disability* to *critically ill*. Such comprehensive records are already in existence for credit standings.

It is believed the existence of such a health record for every individual would be of substantial benefit whenever an illness occurs. It would be available to any health care facility and would markedly reduce the time needed to perform clerical chores. It would also provide more accurate information, and, therefore, facilitate the treatment process.

Sources of information already exist on the individual which could be used in a master file. There are municipality records for basic identification, diagnostic inventories for physical data, and records of public agencies to determine the socio-economic conditions. Actual treatment data would come from patient contacts with private physicians or clinics. This data goes into the automated file and constitutes a relatively complete medical record available at any time an individual is admitted to a health care facility.

This brings an impersonal dimension to health care. How in this automated approach can confidential information be guarded by the attending physician? If this step toward automation is to take place, some type of guardianship over medical record information will have to be exercised for the protection of the patient. Just how extensive automated medical records will become will probably be demonstrated in the next few years.

TENORA MEYER

ATTENTION ALL MEDICAL ASSISTANTS

The 15th Annual Convention of American Association of Medical Assistants, Inc., will be November 9-13 in Atlanta, Georgia. There is a special $50 rate for advance registration; after October 8, registration will be $60. Featured speaker at the convention will be Orie E. Myers, Jr., Vice President for Business and Director of Woodruff Medical Center, Emory University. Registrations may be sent to: American Association of Medical Assistants, One East Wacker Drive, Suite 1510, Chicago, Illinois 60601. More information on this convention and the pre- and post-convention tours will be released in the next issue.

Woman's Auxiliary News

September Is Round-Up Time

It's the time of the year when new doctors' wives are invited to join the Medical Auxiliary. It is also the time when active members renew their enthusiasm for Auxiliary activities.

The Auxiliary offers doctors' wives something not available in any other organization: a chance to work with other doctors' wives in behalf of the medical profession. Here are some reasons wives are attracted to the Medical Auxiliary:

- It is the one organization to which they need no introduction—they are already members of the medical family.
- It is the one social group where wives immediately have something *in common.*
- Its meetings, projects and programs are meaningful and health-related.
- Auxiliary members have a desire to help others and are willing to change, to work, to grow and to occasionally laugh at themselves. They are interested in community problems and want to work together to solve them.
- Auxiliary members have the opportunity to be ambassadors for the medical profession.
- Auxiliary members usually are better informed about the goals of medicine.
- Auxiliaries represent a cross-section of all community, civic, political, service and social organizations.

Doctors' wives are as friendly, courteous and kind, as talented, well-educated, interesting and interested as any other group of women anywhere. We are collectively all of that, even though we are sometimes over-committed and often overlooked. If you have been over looking the potential of the Medical Auxiliary you are encouraged to join your local group or the state auxiliary as a member-at-large.

These words, spoken by Mrs. C. C. Long in 1968 when she was president of the Woman's Auxiliary to the AMA, are convincing: "Not by any stretch of the imagination do I think that the Auxiliary can solve all the problems of our country. But I do believe that we can and should do our part for we have a responsibility as doctors' wives and citizens, to use what knowledge and what talents we have to help not only the medical profession but this nation of ours."

What Is National Saying About Membership?

"With the present and projected eminence of health care in the minds of all citizens, especially legislators and other key people in policy making positions, it behooves every doctor's wife to be informed and active in assisting her husband's individual and organizational activities in these matters.

"Her auxiliary is her authentic resource. Her nonmedical acquaintances and friends, her audience."

Mrs. Willard C. Scrivner
First Vice President
Woman's Auxiliary
American Medical Association

About Auxiliary Membership

Hundreds of organizations vie for the talents and interest of doctors' wives. Acknowledging this, it is true also that only through the medical auxiliaries can doctors' wives work together for the programs which are most important to their husbands. There are periods when a woman feels her duties at home demand her full time and this is understandable. If she is indeed this busy the doctor's wife can still support the medical auxiliary and its projects by becoming a member in good standing. By so doing she will get informational mailings from the state and national offices as well as from the committee chairmen. This relatively inactive member is important to the auxiliary, just as is the doctor's wife who joins for the social aspects of the Auxiliary. Those members who really want to go to work are most desired but all physicians' wives are encouraged to join.

The Auxiliary that has for its parent organization the Iowa Medical Society needs the support of every doctor's wife in Iowa.

Mrs. M. D. (Fran) Hayden
Membership Chairman

WHAT MEMBERSHIP in the Woman's Auxiliary Means to Me . . .

A doctor's wife from Michigan: "I value my membership in the medical auxiliary because it enables me to join with other doctors' wives to extend our husbands' dedicated service to human life."

Another doctor's wife in North Carolina: "I feel that my efforts on behalf of our auxiliary help create a harmonious atmosphere between the medical profession and other elements in our community. Auxiliary membership gives me the chance to grow emotionally, spiritually and intellectually and helps keep me aware of the changing times."

From Arkansas: "Membership in the auxiliary gives us direction and purpose as active leaders in community health. Through it we can tear down the wall of public misunderstanding and build a bridge to good community relations for the medical profession."

Still another doctor's wife from New Jersey says: "In the auxiliary I have been presented with challenges which have placed me 'where the action is,' My choice could be with the preschooler in a day care center, with the adolescent in an environment of drug addition or with the older person in an institution. And there is always the joy of relaxation with friends who share in the same type of involvement."

And FROM IOWA: "With limited time for volunteer work I must be selective in the way I spend my time. Through the many projects in which the auxiliary is involved I feel that with my membership I am involved in more than one organization."

The Big "M" Challenge

Use This Form to Obtain Your '71-72 Membership

The national membership quota for 1971-1972 is 100,000. Let the 100,000 members begin with YOU! If you are a physician's wife in an unorganized county and have not been contacted for membership, HERE'S YOUR CHANCE!

Mrs. .....
(Last Name) (Husband's First Name & Initial)

Street Address .....

City ..... **County** .....

State & Zip Code .....

National Dues	**$4.00**
State Dues	**3.00**
Loan Fund Contribution	
AMA-ERF Contribution	
Total	

PLEASE make check payable to: **Woman's Auxiliary to the Iowa Medical Society** and send to: Mrs. M. D. (Fran) Hayden, Membership Chairman, 1125 W. Willow Street, Cherokee, Iowa 51012

Don't Jump to Conclusions

There is the old story about 12 young men in the Air Corps who were making their first parachute jump. The first 11 jumped as they had been taught. The twelfth man was reluctant to jump, and as he hesitated he asked his senior officer, "What if when I jump I hit the tail of the plane?" It was explained that this wouldn't happen.

The other men had jumped and were now safely on the ground. He walked to the door and again he hesitated and asked, "But what if my parachute doesn't open?" He was reassured that he had an extra chute, an emergency chute. Still apprehensive he inquired, "But what if that doesn't open?" As he led the young man back to the door, the instructor answered, "Then I suppose you'll be jumping to a conclusion."

To avoid "jumping to conclusions" about the Woman's Auxiliary to the Iowa Medical Society, please direct any questions to the Administrative Secretary Mrs. Hazel T. Lammey, Woman's Auxiliary to the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265. She will either answer your question or forward your letter to the committee chairman or the officer who will answer it.

• • •

DOES THE AUXILIARY HAVE A PURPOSE? Here are some thoughts on the subject—

1. To assist the state medical society in the advancement of medicine, public health and medical education.
2. To aid in securing good medical legislation.
3. To act as liaison between the medical profession and the general public.
4. To cultivate friendly relations among physicians' families.

Around the Hawkeye State

Dallas-Guthrie County

Dr. and Mrs. Keith M. Chapler and Dr. C. Robert Osborn attended the May dinner meeting of the Dallas-Guthrie Medical Society and Auxiliary held at the Ski Lodge at Lake Panorama. Following dinner, Dr. David Watkins, a surgeon from Des Moines, addressed the doctors on the topic, "Treatment of Chronic Obstructive Lung Disease."

Mrs. Eugene Lister, of Dallas Center, and Mrs. Charles A. Nicoll, of Panora, reported to the Auxiliary on the Annual Meeting of the State Auxiliary which was held at the Hotel Kirkwood in Des Moines April 25-27. Mrs. William Seidler, Jr., of Jamaica, summarized the medical legislation considered during the 1971 session of the Iowa General Assembly.

Mrs. Chapler was re-elected President of the Dallas-Guthrie Auxiliary to serve a third year.

Black Hawk County

The Black Hawk County Medical Auxiliary has elected the following officers for the 1971-72 year: **Mrs. Robert Weyhrauch, president; Mrs. Robert Bailey, president-elect; Mrs. Richard Long, first vice-president; Mrs. Richard Bondi, second vice-president; Mrs. Braden Stevenson, recording secretary; Mrs. Neil Williams, corresponding secretary; Mrs. Donald Greif, treasurer.**

The Black Hawk County Medical Auxiliary has been involved in a variety of community services this year which it hopes to enlarge upon in the coming year. The two largest projects were the Homebound Handicraft sale, which resulted in $1,170 for the homebound; and the Medical Ball, with the profit of $1,350, donated to the Council on Aging for use in the Meals on Wheels program.

The Perils of Marihuana

Have you read the article, "Effect of Marihuana on the Young," by Harold Kolansky, M.D. and William T. Moore, M.D. in the April 19 issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Page 486)?

Of the article, the Secretary of the AMA's Council on Mental Health, Walter Wolman, Ph.D., said it "exemplifies the kind of careful clinical study that needs to be made and reported in the literature in order that we can compile reliable documentation of the effects of marihuana in man."

The authors, Philadelphia psychiatrists, say their study of 38 young patients suggests that moderate-to-heavy marihuana use may lead to "ego decompensation ranging from mild ego disturbance to psychosis."

"Clearly, there is in our patients, a demonstration of an interruption of normal psychological adolescent growth processes following the use of marihuana," say the physicians. And they stated further there was no evidence of a predisposition to mental illness in any of the 38 patients prior to the development of psychopathological symptoms after marihuana use. Most of the young patients smoked marihuana two or more times weekly, and in general, smoked two or more marihuana cigarettes each time. These patients "consistently showed very poor social judgment, poor attention span, poor concentration, confusion, anxiety, depression, apathy, passivity, indifference, and often slowed and slurred speech," added the psychiatrists.

Aware of claims that large numbers of adolescents and young adults smoke marihuana without developing symptoms, Drs. Moore and Kolansky pointed out that these are unsupported by scientific evidence, inasmuch as each individual has not received a psychiatric study.

Health Education Loan Fund

Mrs. William R. Bliss, Chairman, Health Education Loan Fund, reported at Convention that 13 students in accredited schools in Iowa and in border towns are now HELF participants. Of the 98 students who have used or are using the funds, nine graduates are now repaying loans and 76 have completed payments.

Because of the shortage of educational loans from banks and other sources, there has been a great demand on HELF. The chairman expressed appreciation to the county auxiliaries which have sent gifts to the fund and thanked members for their help in processing loans in their communities.

Mrs. Bliss reported as follows:

FUNDS OUT ON LOAN	$23,083.94
FUNDS COMMITTED FOR LOANS BUT NOT NEEDED UNTIL FALL OF 1971 (NOW IN BANK DRAWING INTEREST)	$ 2,556.50
MONEY AVAILABLE FOR NEW LOANS	$ 1,791.81

Since most of the funds are committed or in use, Mrs. Bliss suggests that further applicants go on a waiting list for possible help in the Fall of 1972.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

Personals

Dr. W. G. Kuehn, of Clarinda, was guest speaker at a recent meeting of the Clarinda Kiwanis Club. Dr. Kuehn presented pictures taken during a People-to-People tour behind the Iron Curtain.

Dr. and Mrs. John Hubiak, of Odebolt, attended the Third National Conference on Coronary Care Units held in June in Miami, Florida. The meeting was sponsored by the American Heart Association.

Dr. L. M. Gearhart has been appointed to the medical staff of the Mental Health Institute in Cherokee. A graduate of The U. of I. College of Medicine, Dr. Gearhart has been psychiatrist-director of the Lower Columbia Mental Health Center in Longview, Washington.

Dr. Merwin R. Dieckmann, of Waterloo, has been named a diplomate of the American Board of Family Practice. Dr. Dieckmann was also recently given a temporary appointment as a Commander in the U. S. Naval Reserve Medical Corps.

Dr. Raymond G. Bunge, professor of urology at The U. of I. College of Medicine, was one of 15 leading scientists invited to participate in a special symposium on "Control of Male Fertility," in Geneva, Switzerland. The symposium was sponsored by the World Health Organization.

Dr. Roger W. McConnell, a former Iowan and now chief of the nuclear radiology division, Department of Radiology, St. Paul Hospital, Dallas, Texas, was elected president of the American College of Radiology during the organization's 48th annual meeting in St. Louis. A 1946 graduate of the University of Cincinnati College of Medicine, Dr. McConnell practiced for 15 years in Davenport as a radiologist at Mercy Hospital. He moved to Dallas in 1965.

Dr. Harold O. Gardner, of Waterloo, recently received his college diploma from Iowa Wesleyan in Mount Pleasant—50 years late. Dr. Gardner, a 71-year-old retired physician, earned the B.S. degree at the College in 1921. When commencement time came, he was attending The U. of I. College of Medicine and was not notified to pick up his degree. Some 15 years ago, Dr. Gardner wrote to Iowa Wesleyan requesting the degree, but the request went unanswered. Recently, while preparing to invite 50-year graduates of the College to the 1971 commencement exercise, Dr. Gardner's request was found. A degree was prepared and a special invitation was sent. Dr. Gardner received his belated degree and special recognition as a 50-year Iowa Wesleyan graduate at the 1971 commencement ceremony.

Dr. Richard L. Lawton, professor of surgery at The U. of I. College of Medicine, spoke on "Shunts, Cannulae, and Fistulas," at a recent meeting of the North American Society of Extracorporeal Technology in St. Paul, Minnesota.

Dr. Donald K. Faber, a LeMars physician, recently was flown to Arlington, Virginia, at the invitation of the Young Lawyers of the State Bar of Virginia, to describe a drug abuse program being carried on by the Young Lawyers Section of the Iowa State Bar. This program is presented at the junior high school level by a doctor and a lawyer and describes the physical and legal effects of drug abuse. The Young Lawyers of Virginia plan to initiate a similar program.

Dr. Carroll Adams, a Mason City orthopedist, addressed a recent meeting of the Wright County Medical Society. Dr. Adams discussed treatment of several common orthopedic conditions encountered by the predominantly general practitioner audience.

Dr. Dan S. Egbert, a Fort Dodge physician, spoke on changes in the medical field during the past 40 years at a recent meeting of the High Twelve Club in Fort Dodge. Dr. Egbert, who has practiced in Fort Dodge since the end of World War II, said hospitals of the future may plan separate office buildings for doctors on the grounds in order to make use of the hospital's facilities for out-patients and minor surgery.

Dr. James G. Baumann, an emergency department physician at Mercy Hospital in Iowa City, has been certified as a diplomate of the American Board of Family Practice. Dr. Baumann is a 1943 graduate of The U. of I. College of Medicine.

Dr. Kenneth Friday, who recently completed two years of a family practice residency at Broadlawns Polk County Hospital in Des Moines, has become associated with the Jefferson Clinic, adjacent to the Greene County Medical Center, in Jefferson. A 1968 graduate of The U. of I. College of Medicine, Dr. Friday served his internship at Hillcrest Medical Center in Tulsa, Oklahoma.

Dr. Robert Turner has joined the Bluff Medical Center in Clinton as a general practitioner. A 1966 graduate of The U. of I. College of Medicine, Dr. Turner served his internship at Memorial Hospital in Rockford, Illinois.

Dr. D. N. Crabb, of Denison, has been appointed a consultant medical specialist to the Federal Air Surgeon. For the past five years Dr. Crabb has been a consultant to the administrator of the Federal Aviation Agency. As one of 12 consultants, Dr. Crabb will go to Washington, D. C., every two months to confer with **Dr. Peter V. Siegel**, Federal Air Force Surgeon, on physical problems in aviation.

Dr. Richard L. Miller has been elected president of the medical staff at St. Francis Hospital in Waterloo. **Dr. C. P. Addison** was named vice president and **Dr. Dwight Conklin**, secretary. All are Waterloo physicians.

Dr. Rafael A. Roure, of Glenwood, has been named to the Mills County Health Board. Dr. Roure replaces **Dr. M. L. Scheffel**, of Malvern.

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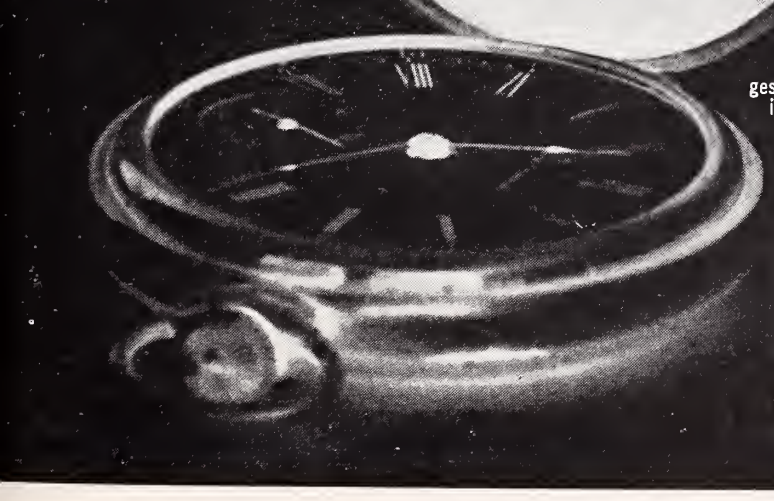

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CONTRAINDICATIONS: Patients with known hypersensitivity to the drug.
WARNINGS: Caution patients about combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness, such as operating machinery or driving a motor vehicle shortly after ingesting the drug.
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Usage in Pregnancy: Weigh potential benefits in pregnancy, during lactation, or in women of childbearing age against possible hazards to mother and child.
PRECAUTIONS: If sleeplessness is pain-related, an analgesic should also be prescribed. Perform periodic blood counts if used repeatedly or over prolonged periods. Total daily intake should not exceed 400 mg, as greater amounts do not significantly increase hypnotic benefits.
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Dr. Ramon A. Yaldua and his wife, **Dr. Cristina Crespo-Yaldua,** began the practice of general medicine, general and plastic surgery, obstetrics and gynecology in Forest City in July. Both received M.D. degrees at the University of Santo Tomas in Manila, The Philippines, and served internships in Des Moines—Dr. Ramon Yaldua at Iowa Methodist Hospital and Mrs. Yaldua at Iowa Lutheran Hospital. Following residencies at Methodist Wesley Medical Center in Wichita, Kansas, they practiced in The Philippines. The two physicians returned to the United States and before moving to Forest City were in charge of the emergency room at Iowa Lutheran Hospital in Des Moines.

Dr. Russell A. Dean, a general practitioner, has joined Medical Associates in Cedar Falls. Dr. Dean received the M.D. degree at the University of Minnesota and served his internship at Bethesda Lutheran Hospital in St. Paul, Minnesota.

Dr. Dale Harding, of Eagle Grove, was guest speaker at the first general meeting of the Iowa Schizophrenia Association in Cedar Rapids. Dr. Harding discussed recognition of schizophrenic symptoms from the viewpoint of the general practitioner.

Dr. Paul From, of Des Moines, has been appointed clinical professor of medicine and acting head of the Department of Medicine at the Des Moines College of Osteopathic Medicine and Surgery. Dr. From is the first medical doctor named to a department head at the College. A graduate of The U. of I. College of Medicine, Dr. From was certified by the American Board of Internal Medicine in 1958, and continues in private practice in Des Moines.

Drs. C. C. Moore and **R. L. Cozine,** of Emmetsburg, were recently certified diplomates of the American Board of Family Practice.

Dr. Beryl Michaelson, of Dakota City, recently participated in a panel discussion on drugs presented by the Humboldt County Drug Information Council and aired on KHBT-FM in Humboldt.

Dr. Herbert B. Locksley, associate professor in the Department of Surgery at The U. of I. College of Medicine, spoke recently on the "Natural History of Hemorrhagic Studies and Evaluation of Surgical Treatment of Aneurysms," at the Gunderson Clinic in LaCrosse, Wisconsin.

Dr. L. M. Gearhart, formerly of Longview, Washington, has been appointed to the medical staff of the Mental Health Institute in Cherokee. Dr. Gearhart is a graduate of The U. of I. College of Medicine and received his psychiatric training at the University of Wisconsin Hospitals and Oregon State Hospital.

Dr. D. G. Bock, of Fort Dodge, recently attended a postgraduate course on internal medicine in Cincinnati, Ohio. The course was sponsored by the American College of Physicians.

Dr. Maxwell Abramson, assistant professor of otolaryngology and maxillofacial surgery at The U. of I. College of Medicine, has been awarded a $7,400 grant from the Deafness Foundation to continue study of middle ear disease. Dr. Abramson's study centers on an enzyme, collagenase, which he believes may be an active agent responsible for bone loss in middle ear disease.

Dr. Eliza L. Pineda has joined her husband, **Dr. Bernardo Pineda,** in the practice of psychiatry at Burlington. Mrs. Pineda was graduated in 1955 from Medical School at the University of Santo Tomas, Manila, The Philippines. She served her psychiatric residency at Traverse City State Hospital in Traverse City, Michigan.

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Dr. James D. Wilson began the practice of medicine in Chariton July 1. A graduate of The U. of I. College of Medicine, Dr. Wilson recently completed his residency in family practice at Broadlawns Hospital in Des Moines.

Dr. Tom Payne, a native of Exira, has joined the Atlantic Medical Center in Atlantic. A graduate of The U. of I. College of Medicine, Dr. Payne completed his internship at Kansas City General Hospital.

The following Iowa physicians have been re-elected to active membership in the American Academy of General Practice—**Dr. Paul Ferguson**, of Lake City, **Dr. Robert Love**, of Lansing, **Dr. Thomas Wright**, of Marion, **Dr. Edward R. Farrage**, of Council Bluffs, **Dr. Roy M. Turner**, of Armstrong, **Dr. John W. Mathiasen**, of Council Bluffs, **Dr. John Flage**, of Independence, and **Dr. W. C. Zabloudil**, of Burlington.

Dr. A. W. Puntenney has closed his office in Boone to accept a post with the Veterans Administration in Des Moines. Dr. Puntenney practiced medicine in Boone for 25 years.

Dr. Woodrow W. Morris, associate dean of The U. of I. College of Medicine, has been appointed to a newly-established advisory council to the Special Committee on Aging of the United States Senate. Dr. Morris has headed The U. of I. Institute of Gerontology since its formation. He has served on President Nixon's Task Force on Aging.

Dr. John C. MacQueen, associate dean of The U. of I. College of Medicine for community programs, and **Dr. B. Fred Brown**, director of the Veterans Administration Hospital in Iowa City, have been elected to the executive committee of the Iowa Regional Advisory Group, governing body for the Iowa Regional Medical Program. Both will serve as members-at-large. **Dr. J. T. May**, of Cherokee, and **Dr. Terry Dynes**, of Decorah, have also been elected to the IRMP Advisory Group. **Dr. John Tyrrell**, of Manchester, was re-elected to the Advisory Group.

Dr. George E. Morrissey, of Davenport, was guest speaker at a recent meeting of the Scott County Chapter of the American Association of Medical Assistants.

Dr. Dean E. Finken has opened an office for the practice of medicine in Logan. Dr. Finken is a 1962 graduate of The U. of I. College of Medicine and served his internship at Mercy Hospital in Cedar Rapids. A former resident of Logan, Dr. Finken has been practicing medicine in Cedar Rapids since 1963.

Dr. Giovanni Bruno has joined **Dr. Frank Nelson** in the practice of radiology at Decorah. Dr. Bruno received much of his medical education in Europe and recently completed a year of training in radiology at the University of Nebraska School of Medicine. He is certified by the German Board of Radiology.

DEATHS

Dr. Rodney C. Wells, a Marshalltown pediatrician, died June 30 at Community Hospital West in Marshalltown. Dr. Wells received the M.D. degree at Rush Medical School in Chicago in 1932. He interned at Harper Hospital in Detroit, Michigan, and received his pediatric training at Lakeside Hospital in Cleveland, Ohio, and Children's Hospital in Detroit, Michigan. Dr. Wells came to Marshalltown in 1935 and was one of the founders of the Marshalltown Medical and Surgical Clinic. He was a member of the Marshall County Medical Society, Iowa Medical Society and American Medical Association.

Dr. Arnold M. Smythe, 77, died July 6 at his home in Des Moines. A graduate of The U. of I. College of Medicine, Dr. Smythe had practiced in Des Moines since 1929. He established the country's first treatment home for tubercular children at Yale University and founded the Des Moines Health Center. Dr. Smythe was a member of the Academy of Pediatrics, the Iowa Medical Society and the American Medical Association.

Dr. William Presnell, 69, a Charlotte physician for 41 years, died July 5 at Jane Lamb Hospital in Clinton. Dr. Presnell received the M.D. degree at The U. of I. College of Medicine, and had practiced in Charlotte since 1931. He was a member of the Iowa Medical Society and American Medical Association.

Dr. Burr C. Boston, 72, died June 18 at his home in Waterloo. Dr. Boston received the M.D. degree at the University of Chicago School of Medicine and began his practice in Waterloo in 1928. He retired from private practice on April 1, 1971. Dr. Boston was a member of the Black Hawk County Medical Society and the Iowa Medical Society.

Dr. M. P. Summers, 88, a Sioux City physician since 1918, died June 30 at a Sioux City hospital following a brief illness. Dr. Summers attended Drake University and received the M.D. degree at the University of Illinois School of Medicine.

Dr. Charles F. Berkstresser, of Sioux City, died July 11 at a Sioux City hospital after a long illness. A 1921 graduate of The U. of I. College of Medicine, Dr. Berkstresser organized the health services at Morningside College in 1936 and directed this program until 1970. He was a life member of the Iowa Medical Society.

Dr. Raymond A. Berger, 66, a Davenport radiologist, died July 15 at St. Luke's Hospital in Davenport. Dr. Berger received the M.D. degree at The U. of I. College of Medicine and served his residency in radiology at the University of Pennsylvania. He had practiced in Davenport since 1946. He was a past president of the Iowa Radiological Society and Scott County Medical Society, and past chairman of the Scott County Chapter, American Red Cross. Dr. Berger served as chairman of the IMS Committee on Quackery for a period of time.

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Usage In Children Not recommended for use in children under 12 years of age.

Precautions
In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

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Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration
The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

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Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.
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JOURNAL of The IOWA MEDICAL SOCIETY

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- Assessment of Medical Students—D. J. Moffatt, M.B., Ch.B., W. K. Metcalf, M.D., and A. W. Jacobs, Ph.D.

October, 1971

Patients fell asleep quickl

Dalmane (flurazepam HCl) 30 mg reduced awake time—both before and after falling asleep - by fifty percent of pretreatment values in patients with insomnia.[1,2]

Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

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References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

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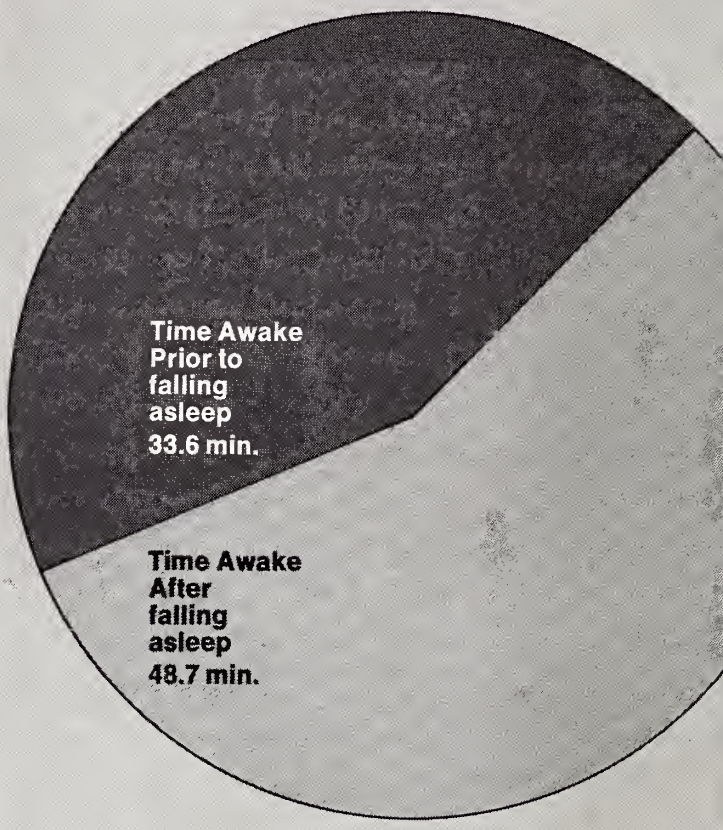
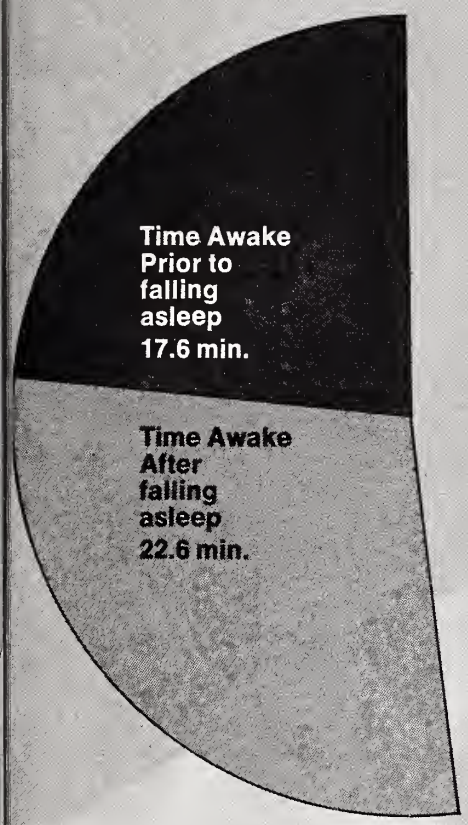
Dalmane
(flurazepam HCl)



Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

ınd slept through the night

On
Dalmane
(flurazepam HCl)



ge sleep laboratory measurements in cited studies

ıeter	Before Dalmane	On Dalmane
required to fall asleep	33.6 min.	17.6 min.
time after onset of sleep	48.7 min.	22.6 min.
er of wakeful periods after et of sleep	12.2	8.4
sleep time	420.0 min.	447.5 min.
sleep percent	88.6	94.5

nical effectiveness as
ɔven in the sleep laboratory

)almane®

urazepam HCl)

30-mg capsule h.s.—usual adult dosage.
15-mg capsule h.s.—initial dosage for
ırly or debilitated patients.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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Nutley, New Jersey 07110

The JOURNAL of THE IOWA MEDICAL SOCIETY

Vol. LXI October, 1971 No. 10

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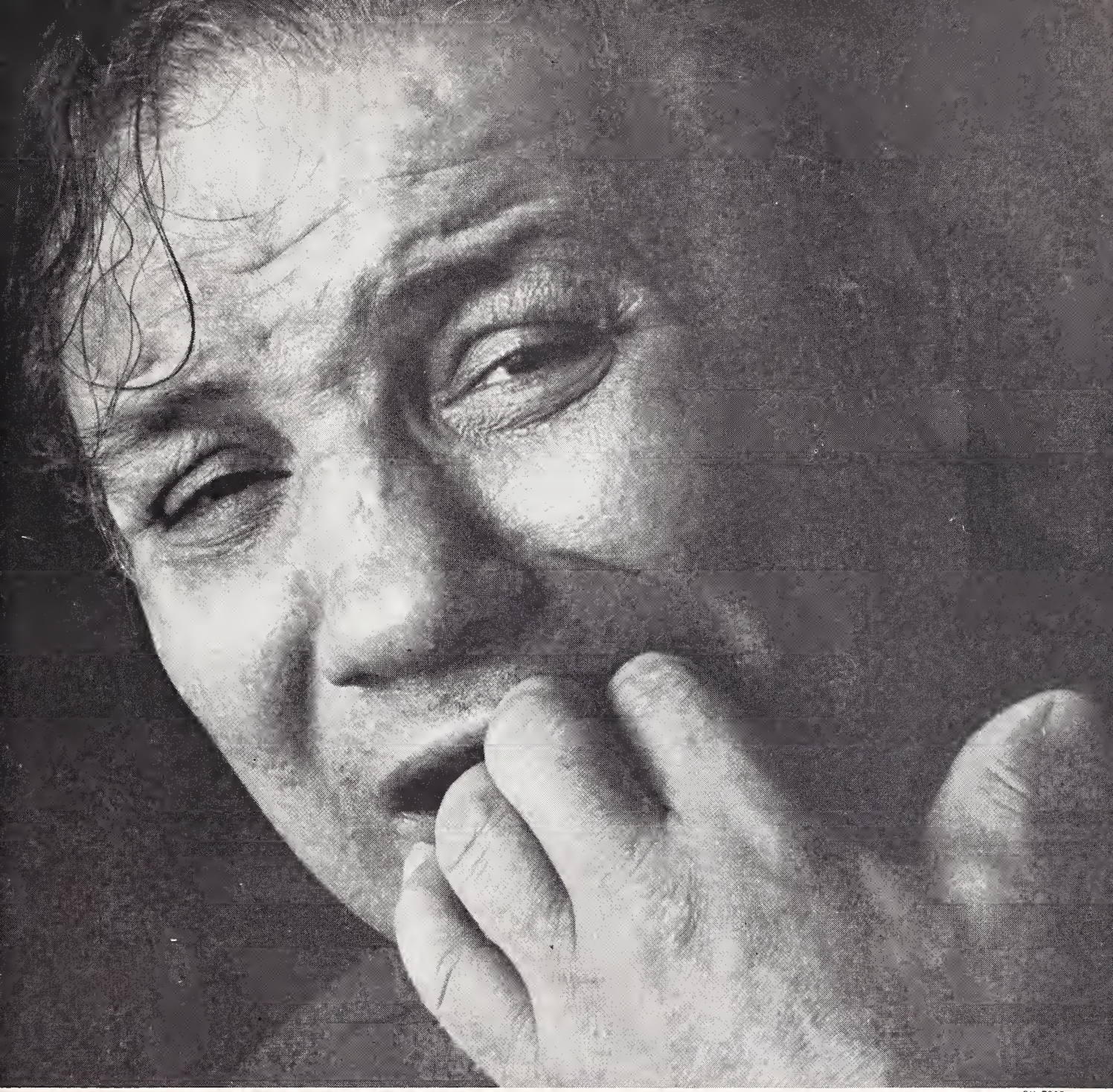

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President's Page

The expectation of good health by all segments of our population has caused many patients to anticipate medical achievement which is beyond the ability of physicians to provide. Even though medical knowledge and skill has progressed to a remarkable point, there are limitations and good health cannot be guaranteed. This dilemma is reflected in the area of professional liability. Physicians, patients, legal counsel and the courts are or should be aware of the sharp increase in premiums for professional liability coverage; this is the result of increased costs of litigation, settlements and judgments. This escalation in turn has had an inflationary bearing on the cost of care to patients.

Finding a solution to this mounting problem will require intelligent planning and dedication on the part of professionals, as well as understanding and education on the part of patients. The solution lies not only in just court verdicts, in the prevention of suits, appropriate settlements, and equitable arbitration, but also in providing the best possible working relationships under disparate circumstances for the professional and the patient.

The attraction of physicians to Iowa is being adversely affected by the denial of malpractice insurance; e.g., solo practitioners are in some instances able to secure coverage which is less attractive than that available to group practitioners. The IMS Medico-Legal Committee must undertake an in-depth study of professional liability. Information must be gathered and evaluated, opinions gauged and attitudes probed. Stabilization of the malpractice situation will require the cooperation of every physician in the IMS, as well as that of attorneys, judges and juries. Cooperative arrangement with other health providers and the education of both patient and physician become vital in the study of professional liability. All avenues should be explored and continued efforts expended in controlling and stabilizing professional liability.

L. J. O'Brien M.D.

President

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IOWA MEDICAL MISCELLANY

PROFESSIONAL LIABILITY . . . Society representatives shared September 15 in a discussion of malpractice matters initiated and hosted by the State Insurance Commissioner. Particular attention was given to coverage problems encountered by osteopathic physicians and surgeons seeking to associate with M.D. groups. Insurance company representatives took part in the meeting as well. Broad evaluation by the IMS of the professional liability situation is continuing and has included an additional recent fact-finding session with Insurance Commissioner William Huff.

• • •

IHC OCTOBERFEST . . . Selected student leaders and teachers from Iowa's public and private secondary schools will examine various of today's hang-ups October 27 at a special conference sponsored by the Iowa Health Council. Discussion topics will include emotional stresses on young people, alcohol and other drugs, sexual conduct and dangers, etc. Set for Veterans Auditorium in Des Moines, the '71 IHC conference goes beyond those of the past two years which have been devoted entirely to drugs.

• • •

SERVES AS PRESIDENT . . . C. E. Radcliffe, M.D., Iowa City, was installed last month as the '71-'72 president of the Iowa Health Council. And Gale Stapp, R.Ph., Oskaloosa, was named president-elect. S. P. Leinbach, M.D., Belmond, was reelected with Dr. Radcliffe as a Society representative on the Council's board of directors. The IMS is one of nine health organizations which comprise the Health Council.

• • •

BOARD OF HEALTH . . . At its September meeting the State Board of Health elected Elmo E. Gamet, M.D., Lamoni, as its president, and picked Albert J. Soucek, D.D.S., Iowa City, as vice-president. Paul Seebohm, M.D., Iowa City, is a new physician member of the Board.

NEW IMS COUNCILORS . . . Albert M. Dolan, M.D., Evansdale, and Philip J. Monnig, M.D., Sioux City, have been appointed IMS District Councilors for the balance of the '71-'72 Society year. They replace Gerald A. Fry, M.D., Vinton, and Howard E. Rudersdorf, M.D., Sioux City, both of whom resigned because of increased practice responsibilities. Dr. Dolan will serve the Society's Sixth District and Dr. Monnig will represent the Fourth District.

• • •

LACK IMMUNITY . . . Ten per cent of nearly 7,000 mothers tested for rubella by the State Department of Health lacked immunity, the Board of Health was advised in September. The Department is urging Iowa physicians to immunize these women and assist them in avoiding pregnancy during the required time interval.

• • •

HMO CONSIDERATION CONTINUES . . . The potential of the health maintenance organization in Iowa continues to be top priority topic within the Society. September discussions by IMS officers with representatives of private insurance, Blue Shield, Blue Cross and the Iowa Hospital Association have been productive and will be continued this fall. Whether changes in the Iowa Code are necessary to enable an HMO to operate is a principal question under consideration.

• • •

IMS EVP CITED . . . Donald L. Taylor, IMS Executive Vice President, has been granted the Chartered Association Executive (CAE) designation by the American Society of Association Executives. This designation is awarded to recognize outstanding achievement in association management. Mr. Taylor is a past-president of the Iowa Society of Association Executives and the American Association of Medical Society Executives.

• • •

NEW IRAG CHAIRMAN . . . George Hegstrom, M.D., Ames, has been succeeded by Kenneth Barrows, Des Moines, as chairman of the Iowa Regional Advisory Group, a 40-member body which advises the Iowa Regional Medical Program. Dr. Hegstrom will continue as a member of the IRAG Executive Committee. Barrows is an officer with The Bankers Life and is highly respected for his work in the health care field.

• • •

IRMP GOALS RESTATED . . . New Iowa Regional Medical Program mission statement reads: "To provide assistance in program planning and development to public and private organizations, institutions and agencies at both the state and local levels to make quality, comprehensive health care accessible at reasonable cost." IRMP is

pledged to assist in developing and testing new voluntary ways of delivering care, to alleviating manpower shortages, to improving utilization and distribution, to enhancing continuing education for health professionals, and to supporting a cooperative health data system.

• • •

CONSIDER STANDARDS . . . IMS Committee on Medical Review will meet October 13 to evaluate suggestions from the various specialty organizations relating to the use in Iowa of standards and norms compiled by the Metropolitan Health Care Foundation (Hennepin County, Minnesota). Adopted on a preliminary basis by the CMR in August, the standards will serve as a basic peer review tool after their evaluation by the specialty bodies and further approval by the CMR.

• • •

FOUNDATION TALLY SHEET . . . Membership in the Iowa Foundation for Medical Care exceeded the 550 mark last month. Foundation officers met September 14 with private insurance representatives to discuss ways of working together.

• • •

SCHEDULE IMS PROGRAM . . . New IMS audio-visual presentation on distribution of IMS dues dollars will be shown to the Woodbury Medical Society in December and the Black Hawk County Medical Society in February. The 15-minute program is available to any interested county society.

• • •

MEETINGS . . . Scheduled to meet in October are the Medical Review Committee (13th), Alcoholism Committee (13th), Sports Medicine Committee (14th), Board of Trustees (19th), Judicial Council (19th), Executive Council (20th), Historical Committee (21st).

• • •

ALCOHOLISM COMMITTEE . . . Alcohol education programs were discussed in September at a meeting of the IMS Committee on Alcoholism. Representatives of the State Department of Public Instruction met with the Committee to explore the broad area of prevention.

• • •

IOWA INVENTOR . . . A new device for moving injured persons has been invented by Gary Steelman of Adel. Designated the Translitter System, the mechanism allows the injured person to be picked up and transported to a hospital with virtually no chance of further injury during the transporting process.

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Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

Speakers' Bureau and Pet Peeves

A large number of faculty members of The University of Iowa College of Medicine stand ready to serve as contributors at your local continuing education programs. Many of these individuals have spoken at hospital staff and county medical society meetings. If you are in need, and wish to invite a particular faculty member whom you know, that is certainly fine. If you do not feel that well acquainted, or need suggestions about topics, or personnel, or costs, please contact me. I will be glad to help you develop a program.

A pet peeve of mine involves the program chairman who contacts me a week ahead of his program date and asks me to "supply a speaker." Since I cannot *assign* a faculty member to the task, but can only extend an invitation, a short-range notice makes life much more pressured than it needs to be.

My second peeve happens when I then ask, "What would you like to hear about? What do you need to know?" Unfortunately, the answer too often is "Whatever you think." Such a program chairman does not seem to understand, in my opinion, what his function *should* be. Apparently, he is interested mainly in a warm body to occupy the speaker's stand for 30 or 40 minutes. As I see it, he should instead assess his own experience, and sound out his constituency, and in that way develop some notion of what actually constitutes a problem for the intended audience. Then he can seek a speaker or other resource to bring information or instruction on that topic. If programs are carefully tailored to the interests and needs of the audience, they will stand a much greater likelihood of producing satisfaction, *and useful learning.*

Whether the experience involves bringing a guest to a county medical society meeting, or bringing a visiting professor into your hospital, or bringing an educational consultant into your own office, I hope we would develop increasing sophistication so that the time, effort and money we do actually invest in continuing education will indeed bear maximum fruit.

To the extent that I can help individuals or groups with their planning, or provide resources through the Faculty Speakers' Bureau, or in any other way, I am pleased to be called.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Oct. 6	Bedside Conference for Family Practitioner (Broadlawns Hospital, Des Moines)
Oct. 7	Clinical Day in Cerebrovascular Disease
Oct. 7-9	In-House Conference Practitioners (Class of 1946)
Oct. 13 thru Apr. 26, 1972*	Psychiatry in Medical Practice: Introductory Course
Oct. 13 thru Apr. 26, 1972*	Psychiatry in Medical Practice: Advanced Course
Oct. 13	Introduction to Postgraduate Course in Psychiatry—Doctor-Patient Relationship
Oct. 14	Refresher Course on Cerebrovascular Disease
Oct. 19-20 and Oct. 21-22	Workshop on Ophthalmologic Photography (Two-Day Workshop, Repeated)
Oct. 20	General Psychopathology—Biologic Bases of Behavior
Oct. 21	Bedside Conference for Family Practitioner (Mercy Medical Center, Dubuque)
Oct. 21-22	Urinalysis (State Hygienic Laboratory)
Oct. 27	Postgraduate Course in Psychiatry—Classification and Diagnosis
Oct. 28-29	Antibiotics and Infection/Course in Infectious Disease
Nov. 3	Ophthalmology Clinical Conference
Nov. 4-6	In-House Conference for Practitioners
Nov. 4-6	International Symposium on Ocular Inflammatory Disease
Nov. 10	Personality Development—Psychodynamic Bases of Behavior
Nov. 10	Diet Therapy U.S.A.
Nov. 10	Clinical Day in Cerebrovascular Disease
Nov. 16-18	Miscellaneous Gram Negative Rods (State Hygienic Laboratory)
Nov. 17	Psychophysiologic Disorders
Nov. 17-20	Symposium on Maxillofacial Injuries
Nov. 18	Bedside Conference for the Family Practitioner, St. Joseph Mercy Hospital, Sioux City
Nov. 19-20	Conference on Occupational Health and Safety
Nov. 20-21	Eye Enucleation Course (for Morticians)

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

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ROBITUSSIN A-C®	●	●			
ROBITUSSIN-DM®	●		●		●
ROBITUSSIN-PE®				●	●
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STATE DEPARTMENT OF HEALTH

ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Phenylketonuria

Because of the increasing evidence that early diagnosis and treatment of phenylketonuria is efficacious in preventing the mental retardation associated with untreated phenylketonuria, every effort should be made in Iowa to guarantee that newborns are screened for phenylketonuria and that, when elevations are found, follow-up is made as soon as possible. This practice will serve to guarantee that the child with persistent elevations is referred to a treatment center within a reasonable length of time. The center in Iowa which is able to provide the multi-disciplinary services in treating phenylketonuria is the Child Development Clinic, a part of the University Hospital School at Iowa City.

A reasonable length of time between screening and referral should be no longer than two weeks. For example, if a child has his PKU test at three days of age and the laboratory performs tests only once a week, the latest the responsible physician should be notified of the elevations should be at 10 days of age. The physician should immediately order a repeat serum phenylalanine determination and, if this is found to be above 15 mg. %, the Child Development Clinic should be contacted to arrange for further evaluation and treatment if necessary. If the blood level on repeat is below 15 mg. %, consultation can be obtained as to an appropriate regimen for following the child's blood levels.

In order to facilitate early referral, the test must be performed weekly by approved laboratories. Approved laboratories should be in the State of Iowa where the State Department of Health and the State Hygienic Laboratory can maintain quality control and ready communication. Copies of reports regarding any elevations are required by regulation to go directly to the State Health Department. Information about appropriate retesting and referral should be sent to the responsible physician along with the information about the elevation. This should convey the urgency for immediate retesting of the child. This retesting should be done at the State Hygienic Laboratory in Iowa City and the sample should be sent by air mail no later than two days after the physician has been notified of the newborn screening elevation. This means the State Hygienic Laboratory would receive the second blood specimen on children with significant elevations when they are no older than 12 days of age and the retesting results would be available the next day. The State Department of Health and the Child Development Clinic can be notified along with the referring physician of the results of this test and if necessary, we can contact the physician to arrange referral to the Child Development Clinic for further evaluation and treatment.

The State Department of Health urges all physicians to use state-approved laboratory facilities. Only about 75 per cent of the children born in Iowa are being tested in state approved laboratories. There is difficulty with surveillance of the program if state approved laboratory facilities are not used. It would be tragic indeed if one of the two or three phenylketonuric children born in Iowa each year were not diagnosed despite the state policy in this regard. It would also be tragic if, due to inefficiency or poor communication, the child was more than a few weeks of age when therapy began. Several children have arrived at the Child Development Clinic at six or more weeks of age to *begin* therapy. There is evidence that during this time irreversible brain damage may have already occurred.

The primary interest of the Child Development Clinic is the welfare of the children in the State of Iowa, and the staff is understandably quite concerned about receiving a child with a treatable condition, such as phenylketonuria, after a delay in referral or when a physician without adequate training and experience has attempted to treat this complex disease because he is unaware of appropriate referral sources.

The above article was prepared from material submitted by Charles F. Johnson, M.D., Assistant Director, Child Development Clinic, University Hospital School, University of Iowa, Iowa City, Iowa 52240. Questions may be directed to Dr. Johnson at 319-353-4825.

Special Program

The co-director of the Center for Newborn and Premature at the University of Colorado will be at Iowa Methodist Hospital the week of November 1 for a series of conferences and lectures.

Lula O. Lubshenso, M.D., who is also an associate professor of pediatrics at the University of Colorado, will be in Des Moines for five days. A special dinner and lecture is scheduled at 6:15 p.m. on November 3.

Morbidity Report for Month of August 1971

Diseases	Aug. 1971	1971 to Date	1970 to Date	Most August Cases Reported From These Counties
Brucellosis	2	13	34	Black Hawk, Scott
Chickenpox	22	5385	4110	Dubuque
Conjunctivitis	2	350	231	Hardin, Johnson
Gastrointestional viral infection	40	5219	173	Johnson
German measles	5	662	2008	Black Hawk
Gonorrhea	517	3570	3476	Linn, Polk
Impetigo	17	237	303	Polk
Infectious hepatitis	22	211	223	Polk, Scott
Infectious mononucleosis	11	749	366	Johnson, Scott
Malaria, imported P. vivax	2*	23	15	Polk
Measles	8	2238	1088	Black Hawk
Meningitis				
aseptic	3	3	1	Mitchell
coxsackie B4	1	1	0	Boone
viral	1	3	3	Dubuque
type unspecified	2	8	11	Pottawattamie
Meningo-encephalitis	2	5	5	Pottawattamie, Shelby
Mumps	28	2948	2290	Dubuque
Pneumonia	63	595	620	Johnson, Pottawattamie, Scott
Rabies in animals	16	173	71	Scattered
Rheumatic fever	2	44	41	Adair, Scott
Salmonellosis				
S. enteritidis	2	8	2	Polk
S. heidelberg	1	1	2	Iowa
S. montevideo	1	1	1	Polk
S. oslo	1	2	0	Pottawattamie
S. saint paul	2	2	2	Linn, Woodbury
S. thompson	21	21	2	Cherokee, Ida
S. typhimurium	9	29	19	Black Hawk, Dubuque, Polk, Webster
S. typhimurium var. copenhagen	2	3	2	Polk
Shigellosis				
S. sonnei	33	104	47	Polk, Scott
Streptococcal infections	217	4736	4591	Johnson
Syphilis	40	399	357	Polk
Tetanus	1*	1	1	Kossuth
Tuberculosis, active	13	92	85	Scattered
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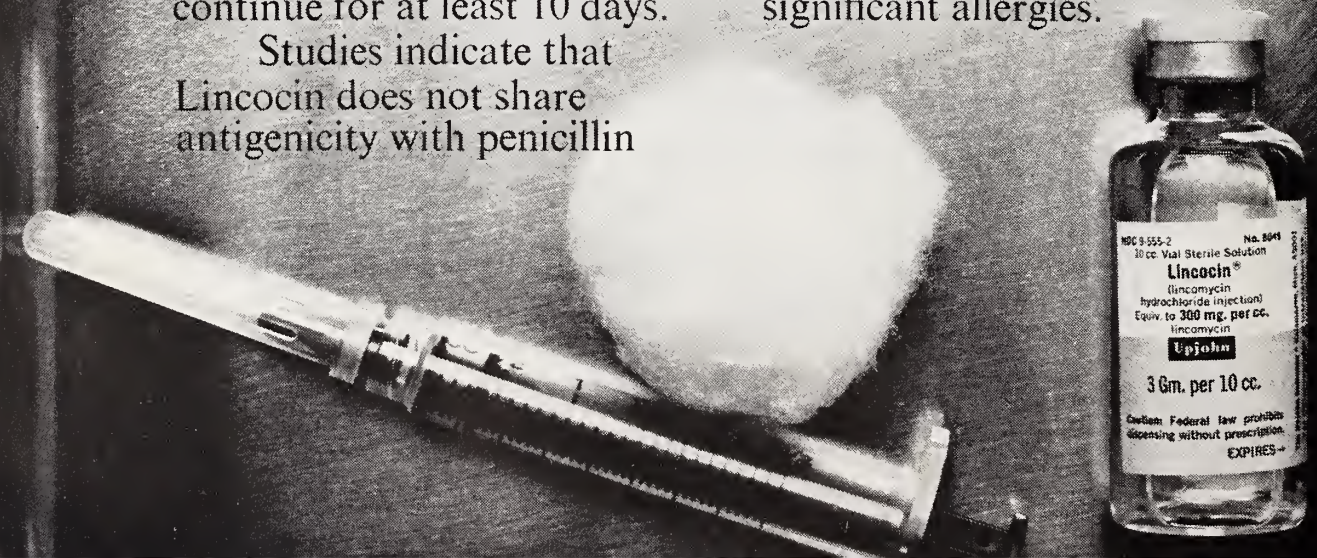

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PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.

Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

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THE DOCTOR'S BUSINESS

Difficulty in Keeping Up?

LARRY E. LEAVERTON
Des Moines

Almost every professional man finds himself at times literally buried in paper—unanswered correspondence, overlooked deadlines, jobs partly completed, professional journals to read, etc. In addition to accumulated administrative work, there are meetings to attend, office emergencies, drop-in patients—time problems that develop in the most carefully planned day.

It is almost impossible to stay on top of your workload permanently but there are ways of easing the problem.

One system for paperwork backlog works as follows—go through your pile of paper piece by piece, from top to bottom, doing nothing except examining each item. Resist handling items you can dispose of in a minute or two. If you succumb, you will stop for items which take five minutes, then 10, then 30, and you will never reach the bottom of the pile. If you avoid the detours and go straight through, you will have an overview of what has to be done, an insight into the magnitude of the task before you, and some idea of what you must do. If you are far behind in your work you will find it somewhat depressing, but less so in the long run, than the helplessness of not being able to master your workload.

Next, run through the pile again sorting items into three piles: *(1) Imperative—top priority items. (2) Important—all other action items. (3) Items to be filed or discarded.*

In going through the pile watch for items your secretary can handle—a routine referral letter, questions she can answer by phone, routine requests for information, etc. Don't be sidetracked by reading material—this goes into another pile. As new items come in by mail, telephone or other ways, merge these each day into your three piles. For those obligations which are not in writing, write each one in a few words on a separate sheet of paper and treat it with the others. Appointments, other than patient appointments, should go on your desk calendar and be coordinated with your daily appointments at your reception desk. Now start through your priority items in order of priority, one at a time, completing these before you consider other projects. You will soon find your top priority file becoming more current. Other items will be delayed but they will be the least important.

Here are some other suggestions that may assist you in cleaning up a backlog of paperwork or uncompleted projects:

1. *Examine your appointment schedule for leaks.* You have heard the axiom "work expands to the time available for its completion." Are you routinely allowing 15 to 20 minutes for a 10 to 15 minute procedure?

2. *Stay with a project until it is completed.* Avoid being sidetracked from job to job or you will not complete any of them. Keep a pad of paper beside your work so you can jot down notes relating to other matters as they come to you.

3. *Try coming to the office earlier than usual, before your appointments start.* You will accomplish more while fresh and will have fewer distractions.

4. *Avoid spending more time on an item than it is worth.* When you are swamped you may have to settle for a little less than perfection.

5. *If you have developed the habit of staying late in the day or taking work home, you may be wasting some time during the day, figuring you will work late anyway.*

6. *Avoid preoccupation.* You can't accomplish one task while worrying about another.

7. *Your professional reading is important to keeping up.* This must be attacked, use time during a canceled appointment, a short lunch period, or during a planned uninterrupted period in the day or evening.

One of the best pieces of office equipment for the busy physician with a paperwork problem is the desk credenza with shelf room and sliding doors; with this piles of paper can be kept out of sight. Few things are more unsightly than a desk piled with stacks of paper, unread medical journals and drug samples. The only danger in putting sorted material out of sight is the possibility of forgetting the priority items, but daily reference will keep them in mind.

Mr. Leaverton is Director of Research and Development for Professional Management Midwest.

THE JOURNAL *Book Shelf*

Book Reviews

HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY, ed. by *G. E. W. Wolstenholme* and *Maeve O'Connor*. (London, J. & A. Churchill, Publisher, 1971).

This study group report from The Ciba Foundation updates an earlier symposium on cardiomyopathies published in 1964. Chaired by Dr. H. B. Burchell of the Mayo Clinic, the current panel of experts from many countries discusses present concepts of what was formerly known as hypertrophic idiopathic subaortic stenosis.

The consensus expressed in this symposium is that the syndrome is primarily a disease of cardiac muscle; that the site of obstruction is between the septal bulge and the anterior mitral leaflet; that the major problem is loss of myocardial distensibility; that at least some of the cases are familial; that mitral insufficiency is frequently associated with the late-systolic outlet obstruction; that beta-adrenergic blocking agents are often of value; and that surgical attack on the hypertrophied interventricular septum produces satisfactory clinical improvement in those cases unrelieved by drug therapy.—*Herman J. Smith*, M.D.

ELECTRODIAGNOSIS AND ELECTROMYOGRAPHY, Third Edition of Volume I of Physical Medicine Library, ed. by *Sidney Licht*. (New Haven, Elizabeth Licht, Publisher, 1971, $14).

This third edition of ELECTRODIAGNOSIS AND ELECTROMYOGRAPHY, Volume I of the Physical Medicine Library, will be helpful to those interested in these subjects. The third edition includes an updated section on electromyography, which continues to develop as a clinical laboratory procedure. That portion of the book covering electrodiagnosis remains quite comprehensive but essentially unchanged from the previous editions. The book is well written by recognized experts in electrodiagnosis and electromyography. A valuable addition is a glossary of technical terms. In this relatively new field of electromyography, terminology has been somewhat confusing and this should help alleviate some of the confusion.

This volume is an excellent "beginner's" volume and will be of primary interest to residents in physical medicine and rehabiltation, neurology residents, neurosurgical residents, and possibly orthopedic residents and physical therapists. The book will be a valuable addition to the library of anyone who performs these procedures as it is comprehensive and up to date. I do not think the book will be of any particular interest to the physician who does not use these techniques in his practice.—*Walter L. Modaff*, M.D.

BECKER-SHAFFER'S DIAGNOSIS AND THERAPY OF THE GLAUCOMAS. Third Edition, ed. by *Allan E. Kolker*, M.D., and *John Hetherington, Jr.*, M.D. (St. Louis, C. V. Mosby Company, 1970, $25).

I have read parts of the book "Becker-Shaffer's" Diagnosis and Therapy of the Glaucomas. I find it all inclusive for so complicated a field of disease of the eye.

It may be read and understood by students and residents of ophthalmology and as a refresher reference for experienced ophthalmologists. It may be too detailed for generalists.—*J. H. McNamee*, M.D.

HANDBOOK OF PEDIATRICS, Ninth Edition, ed. by *Henry K. Silver, C. Henry Kempe*, and *Henry B. Bruyn*. (Los Altos, Cailfornia, Lange Medical Publications).

"By Henry!" here it is again . . . a new edition of this valuable handbook. As with the previous eight editions, this concise compendium of readily available data should be of great reference value. The practitioner, pediatric resident and the intern alike can make good use of its contents. This handbook is small enough to fit into a pocket, yet big enough to provide ready reference.—*M. E. Alberts*, M.D.

HORMONES AND THE IMMUNE RESPONSE, Ciba Foundation Study Group #36, ed. by *G. E. W. Wolstenholme* and *Julie Knight*. (London, J. & A. Churchill, 1970).

This book relates the presentations of an international group of investigators at a 1970 meeting in London sponsored by the Ciba Foundation. It consists of papers relating animal (mouse, chicken, guinea pig and rabbit) experiments of eight groups of investigators. Following each paper is a discussion which tends to bring to light areas of agreement and disagreement as well as areas for further study.

Discussions center on two main subjects. One is the nature of thymic hormone (or hormones) and its role in influencing cell mediated immunological competence and in releasing thymic lymphocytes. The other is the influence of hormones (e.g., cortisol, thyroxine, somatotrophic hormone, testosterone, etc.), antilymphocyte serum and thymectomy on certain immune responses such as graft-vs-host reaction and immunological maturation.

In my opinion, most practicing physicians will not find this publication rewarding because of the excessive experimental detail and animal emphasis. However, by contrast, investigators in endocrinology and immunology should find the book stimulating and worthwhile.—*Ronald L. Villela*, M.D.

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Scientific Articles

Smallpox Vaccination: Continuing Problem

DAVID L. SILBER, M.D., and
WILLIAM E. BELL, M.D.
Iowa City

"UNTIL ERADICATION *(of smallpox) is achieved or, at least, nears realization, vaccination, although not wholly without risk, now represents the only suitable approach for community protection in the United States. Comparing the risks of smallpox spread in the United States and the risk of primary vaccination complications for adults with the risks of complications of vaccination of children, it seems prudent for the present to continue the practice of regular smallpox vaccination in early childhood and subsequent periodic revaccination.*"

The above statement from the Public Health Service Advisory Committee on Immunization Practices has been officially endorsed by the Committee on Infectious Diseases of the American Academy of Pediatrics.[1] This is the latest development in a long-standing vigorous debate on the continued use of smallpox vaccine. The most outspoken of those opposed has been Dr. Henry Kempe[2-4] who argues that the protection against smallpox outbreaks provided by mass vaccination is largely imaginary and the price of this protection, in terms of complications, is higher than often realized.

How this debate will be resolved remains uncertain, but it is clear that routine use of smallpox vaccine, and the associated complications, will not disappear in the foreseeable future. Accordingly, it seems appropriate to review information which will allow the practitioner to recognize, manage, and most importantly, to sometimes prevent the distressing complications which may follow smallpox vaccination.

HISTORY

Vaccination for smallpox is the oldest known immunizing procedure, having been introduced by Jenner in 1798. Experience since that time attests to the effectiveness of the procedure. Mass vaccination has eradicated smallpox in the United States and Europe, except for occasional outbreaks which have been effectively controlled by rapid administration of vaccine. Examples of the latter occurred in Moscow in 1960 when an epidemic was aborted by immediate vaccination of approximately 9 million susceptible individuals, and in England in 1963 when the vaccination of 5.5 million people arrested the spread of another potential epidemic.

THE VACCINE

The most widely used preparation is a suspension of an attenuated live virus in lymph

The authors are faculty members at The U. of I. College of Medicine. Dr. Silber is an associate professor of pediatrics. Dr. Bell is an associate professor of pediatrics and neurology.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF OCTOBER, 1971.

from a calf or sheep infected with cowpox. This preparation requires storage in the frozen state and potency is diminished if the vaccine is allowed to thaw. A lyophilized preparation is available and offers the advantages of sustained potency when stored at room temperature. Still another preparation which is prepared by culture in the chick embryo offers the theoretical advantage of a reduced likelihood of contamination by bacteria or other viruses. Recently, a highly attenuated strain of vaccinia virus has been under study[5] and appears to confer adequate immunity with a negligible incidence of serious adverse reactions. It is hoped this preparation will become available for general use and thereby offer an alternative to the present product.

TECHNIQUE

The preferred site of vaccination is the skin over the deltoid muscle at a point just superior to the insertion of that muscle. In young infants, it is advisable to apply the vaccine slightly superior and posterior to that point. This serves to make the vaccination site more difficult for the child to reach and it also compensates for migration of the scar in an anterior and distal direction as growth occurs. Some organic solvents (such as alcohol) will inactivate the virus. The preferred solution for cleansing the skin is acetone; however some suggest no preparation of the skin prior to vaccination. The traditional technique calls for the application of a drop of fluid at the injection site followed by scarification of the underlying skin with a sterile needle utilizing the multiple pressure technique. In an attempt to minimize local reaction and reduce the probability of side effects, especially in individuals being vaccinated for the first time, scarification should be limited to two or three applications of the needle rather than the 20 or 30 as previously recommended.[3] There is available a sterile plastic ring with multiple tines which may be slipped over the thumb and pressed to the skin which affords a relatively uniform area of scarification. The primary advantage of this device would seem to be convenience.[6] Removal of excess fluid vaccine by blotting with sterile cotton minimizes the possibility of transfer to another site. The vaccination site should remain uncovered and exposed to air. The use of shields or bandages provides a warm, moist culture medium which invites secondary bacterial infection.

Recent experience with the highly attenuated strain mentioned previously indicates adequate antibodies are obtained and local reactions are diminished by the administration of this agent intradermally.[5] On an experimental basis[7] smallpox vaccine has been administered intradermally combined with rubeola vaccine followed by adequate antibody response to each. Adoption of this practice as a routine awaits further investigation.

LOCAL RESPONSE

Assessment and classification of the local response has become a traditional practice of questionable value. Nevertheless, the physician frequently is called upon to make this assessment to satisfy the requirements of certain immunization records, especially those involved in foreign travel. This classification has become somewhat confused by the appearance of several synonyms. The optimum time for evaluating response is 7 to 10 days after vaccination. The typical response in a previously unvaccinated individual consists of an area of erythema measuring 10 to 12 cm. which develops 8 days after vaccination followed by a vesicle which progresses to a pustule, then forms a crust and results in a scar. Fever, malaise and regional adenopathy at 9 to 10 days after vaccination are usual. A response of this nature generally is referred to as a primary or major response. In the previously vaccinated and partially immune individual, the typical response consists of a smaller area of erythema (4 to 6 cm.) which develops in 4 to 7 days after vaccination; a vesicle or papule 24 to 48 hours thereafter; development of a small scar which may fade; and minimal systemic manifestations. This type of reaction usually is referred to as vaccinoid, accelerated or minor response. In the previously vaccinated individual who is immune, there may be no reaction or a mild local reaction indicative of sensitivity to viral protein. Absence of any reaction cannot be accepted as evidence of immunity since the same might occur as a result of poor technique or the use of deteriorated vaccine. If a reaction occurs in the immune individual, it usually consists of a small area of erythema which develops in 8 to 72 hours; a very small vesicle or none at all; no

scar, and no systemic manifestations. This type of reaction is referred to as an early or allergic response.

ANTIBODY PRODUCTION

Following vaccination, antibody production occurs relatively rapidly, but protective immunity probably takes a minimum of 3 weeks. The duration of immunity is variable, but usually is relatively prolonged. The probability of acquiring smallpox at different intervals after vaccination has been estimated as follows: within 1 year 1/1000, 3 years 1/200, 10 years 1/8, 20 years 1/2.[3] Repeat vaccination will maintain protective antibody levels. In endemic areas, repeat vaccination on an annual basis is advised; in non-endemic areas, vaccination should be repeated every 5 to 7 years.

The newborn has passive immunity if the mother was recently vaccinated. About 60 per cent of newly born infants have antibody levels which are equal to or greater than the mother's titer if the mother was vaccinated within 5 years prior to delivery. This accounts for the difficulties in successful vaccination of very young babies, and it was this observation that gave rise to the development of hyperimmune gamma globulin (VIG) discussed later. The newborn's passive immunity will not interfere with normal antibody production if a primary "take" occurs. However, most adults in the United States have not been vaccinated within 5 years;[8] therefore, the newborn's potential passive immunity need be considered only rarely.

COMPLICATIONS

Table I summarizes the complications of smallpox vaccination which the clinician may encounter. The division into minor and major categories is on the basis of morbidity and mortality; none of the minor complications is associated with fatal outcome. Likewise, management of the minor complications generally consists of supportive therapy, whereas the major complications usually call for specific and aggressive treatment. Such treatment usually is centered around the administration of Hyperimmune Vaccinal Gamma-Globulin (Vaccinia Immune Globulin, VIG), extracted from blood taken from donors who have been successfully vaccinated shortly before donating. Until recently, this material was available only through the American Red Cross after receiving clearance from one of several regional consultants. This source still exists and the identity and location of consultants can be determined from the Red Cross or by consulting the American Academy of Pediatrics "Red Book";[9] in addition, VIG is now available commercially. More recently, methisazone, one of a class of drugs known as the thiosemicarbazones, has been found to be effective on an experimental basis in the treatment of certain of these complications. Methisazone also is effective as a prophylactic agent in the face of an impending epidemic of smallpox. As of this writing, the drug still has not received FDA approval but may be obtained on demonstration of need from the manufacturer (Burroughs Wellcome) or the National Communicable Disease Center in Atlanta.

VIG may be used as prophylaxis against smallpox in exposed individuals and against vaccination complications in high risk patients who must be vaccinated. Under these circumstances, VIG is given intramuscularly in a dose of 0.3 ml. per kg. of body weight.[9] For treatment of severe vaccination complications, the usual dose is 0.6 ml. per kg. of body weight given intramuscularly.[10]

TABLE I

CLASSIFICATION OF COMPLICATIONS OF SMALLPOX VACCINATION

Minor
Exaggerated fever
Febrile seizures
Erythema Vaccinatum (Roseola Vaccinatum)
Erythema Multiforme
Accidental infection (transfer)
Lymphatic transfer
Hair growth
Bone involvement
Major
Neurologic complications
Post-vaccinal encephalitis or encephalomyelitis
Post-vaccinal encephalopathy
Peripheral neuritis
Vaccinia Necrosum (Progressive Vaccinia, Vaccinia Gangrenosum)
Eczema Vaccinatum
Generalized Vaccinia
Bullous Erythema Multiforme
Hyperpyrexia, coma, and death

Figure 1

Complications of smallpox vaccination are not rare although exact incidence figures are difficult to obtain. The most reliable data available appear to be those published by Neff[11] from a national survey of 14 million vaccinations given in a one-year period in the United States. Of these, roughly one-half were primary vaccinations and the remainder, repeat vaccinations. In the total group there were 433 reported complications with 7 deaths. This translates to an overall incidence of 52.9 complications and 1 death per million vaccinations. Kempe[4] estimates that 12 to 18 deaths occur annually in the United States as a result of complications of primary vaccination. On this basis, Kempe estimates that there have been 240 vaccination-related deaths in the United States since 1948 when the last death from smallpox occurred. Assuming the mortality rate from smallpox is 33 per cent, Kempe points out that 700 cases of smallpox would be required to produce the same number of deaths as he estimates have occurred from vaccination complications. Morbidity with these complications is generally high. Approximately one-half of such patients require hospitalization. In the discussion which follows, estimated frequency of occurrence of each of the complications has been derived from Neff's data unless otherwise specified.

MINOR COMPLICATIONS

FEVER The most common minor complication is an exaggerated febrile response. Following vaccination, fever is to be anticipated beginning about the eighth day and disappearing rather predictably by the tenth day. Generally fever is of low grade and easily controlled with aspirin. On occasion, temperatures of 104°F or greater may occur and are not necessarily indicative of a more serious complication. Marked temperature elevation which persists beyond the eleventh day after vaccination should not be assumed to be related to vaccination.

FEBRILE SEIZURES Data on the incidence of febrile seizures with vaccination are not readily available. In one study of 100 thousand vaccinations of children under 3 years of age no febrile seizures occurred in infants vaccinated during the first 6 months of life; between 6 and 12 months seizures occurred at a rate of 1/1,451; between 12 and 24 months, 1/651; and between 24 and 36 months, 1/2,272.

ROSEOLA VACCINATUM An erythematous, macular, and sometimes urticarial eruption, usually referred to as roseola vaccinatum or erythema vaccinatum, may appear 8 to 10 days following vaccination. This rash apparently represents a sensitivity phenomenon and frequently diminishes or disappears after treatment with antihistamines. Less commonly, the rash may assume the characteristics of erythema multiforme, in which case disappearance of the rash may be less rapid (Figure 1).

ACCIDENTAL INFECTION Accidental infection, or transplant of a vaccination to an ectopic site, occurred with a frequency of 14 per million vaccinated patients in Neff's study. Since these transplants usually are not problems of major consequence, it is likely that the frequency of occurrence actually is greater. The sites most commonly involved are the face, nose, lips, vulva, any abrasion or laceration, and the eye. Figure 2 illustrates a most unusual transplant to the tongue. Accidental infection in the eye may be a very serious complication leading to permanent corneal damage.[13] Transplants to the cornea, unlike the other minor complications, are indications for the use of VIG. Treatment with ioxuridine has been associated with variable results and the value of this agent in ocular vaccinia is controversial.

MISCELLANEOUS Other minor complications which have been reported include ap-

parent lymphatic transfer of the virus with one to several additional vesicles at distant sites along the path of lymphatic drainage,[14] profuse hair growth at the site of the vaccination scar,[14] peculiar changes in bone underlying the vaccination site which are believed to represent osteomyelitis,[15] and suppression of Histoplasmin reaction.[16]

MAJOR COMPLICATIONS

NEUROLOGIC COMPLICATIONS Neurologic complications have remained the most feared, although not the most common, of the adverse effects of smallpox vaccination. In the 1920's reports began to appear of patients developing nervous system manifestations following Jennerian vaccination.[17] Remarkable variation regarding frequency of post-vaccinal encephalitis has resulted from studies compiled in the literature. In the Netherlands, rates as high as 1 case in 5,000 vaccinations were described.[18] Among approximately 5 million persons vaccinated in New York City in 1947, the ratio of identified cases of post-vaccinal encephalitis to vaccinations was 1 to 110,000.[19] In a United States survey in 1963, Neff, *et al*[11] found the frequency of post-vaccinal encephalitis to primary vaccinations to be 1.9 per million. Data on the relationship between age and the likelihood of post-vaccinal encephalitis have been equally confusing. Several studies have suggested that the risk increases with primary vaccination with increasing age and is significantly less under 2 years of age. The unusual occurrence of encephalitis in infancy after smallpox vaccination was emphasized by Scott.[20] Of 569 cases of post-vaccinal encephalitis reported, only 7.2 per cent occurred in infancy while 34 per cent of all vaccinations administered were in the infant age group. Spillane and Wells[21] have also indicated that encephalitis as a complication of smallpox vaccination occurs mainly beyond the infant age group. They ascribe the conflicting statements in the past in this regard to the lack of distinction between post-vaccinal encephalomyelitis and post-vaccinal encephalopathy. The latter is said to occur in infancy as well as in older children, however, clinical differentiation is not always possible. The recent report by Lane, *et al*[22] of vaccination complications in the United States is in conflict with the previous studies in this regard. Of 34 fatal cases of post-vaccinal encephalitis, 12 occurred in infants under 12 months of age even though infants received only 12 per cent of all primary vaccinations.

Figure 2

Post-vaccinal encephalitis or encephalomyelitis usually occurs 8 to 15 days after vaccination although wider ranges of the incubation period have been described. The onset is usually abrupt with fever, headache, vomiting and mental confusion or disorientation. Convulsions, either focal or generalized, and various types of long-tract signs may occur. Neck rigidity and other signs of meningeal irritation are often present. Cerebrospinal fluid findings have been variable although elevated pressure, increase in protein content and a lymphocytic pleocytosis have been commonly mentioned. Mortality statistics have varied considerably. In the New York series in 1947,[19] there were 4 deaths among 45 cases, a mortality rate of 9 per cent. Of 11 cases of post-vaccinal encephalomyelitis in the South Wales series,[21] only 1 died. Of the 10 survivors, 3 had persisting neurologic sequelae. Of 12 cases included in the review by Neff, *et al*,[11] 5 died, 6 recovered with no apparent residual deficits, and 1 was left with severe neurologic sequelae. Histologic examination of brain tissue in fatal cases of post-vaccinal encephalitis reveals peri-

venous inflammatory cellular infiltration plus infiltration of lymphocytes and plasma cells in Virchow-Robin spaces. Myelin pallor is seen in the perivascular regions laden with cellular exudate. Treatment of this complication of smallpox vaccination is supportive including control of seizures, prevention of hyperthermia and maintenance of fluid and electrolyte balance. Corticosteroids have been used but there is little evidence to date supporting any beneficial effect therefrom. Vaccinia immune globulin does not appear to influence the course of post-vaccinal encephalomyelitis although clinical trials have been few.

Post-vaccinal encephalopathy occurs in infants as well as older children. The disorder usually appears abruptly with fever and most often is initiated with seizures. Spillane and Wells[21] stated that the incubation period here tends to be more variable than in those with encephalitis and that spinal cord involvement does not occur. Except for an elevated pressure, cerebrospinal fluid findings are often normal. Prompt recovery may follow control of seizures and the total illness tends to be shorter than in those with post-vaccinal encephalitis. Recovery is not always complete with some developing residual long-tract signs or cerebral impairment. The cerebral pathology of this condition has not been well defined but cerebral edema or vasculitis has been proposed.[21] Differentiation of a simple febrile seizure following vaccination and post-vaccinal encephalopathy may not be possible and, perhaps, represents an artificial distinction. Febrile seizures are generally thought of as brief, generalized episodes followed rather promptly by recovery or transient sleep. Post-vaccinal encephalopathy is more apt to be associated with more prolonged and recurrent seizures, at times with focal components and with a greater degree of lethargy or drowsiness. Considerable overlap must exist and a plausible consideration is that the pathogenesis of both may be the same with the only difference being a matter of severity.

Figure 3

Peripheral nerve and rootlet involvement may also occur as a complication of smallpox vaccination. Winkleman[23] reported 5 cases, all adults, with peripheral nervous system deficits secondary to the vaccination program in New York in 1947. The incubation period from vaccination to onset of symptoms was from 7 to 14 days. In 4 cases, the onset was abrupt with pain in the shoulder region. Mixed motor and sensory involvement occurred in all, and in 4 of 5 cases, primary involvement of the fifth and sixth cervical nerves occurred. The outcome in these cases was good as all recovered within a matter of months. Spillane and Wells[21] identified 5 cases of post-vaccinal, symmetrical polyneuritis in their series. These cases also made good recoveries although one patient retained a peripheral facial paralysis when examined 6 months after the onset. Two cases of brachial neuritis in this series were also attributed to preceding smallpox vaccination.

VACCINIA NECROSUM Vaccinia necrosum, (progressive vaccinia, vaccinia gangrenosum) refers to uncontrolled virus multiplication at the vaccination site with progressive necrosis of skin, subcutaneous tissue, and underlying structures (Figure 3). On occasion, tissue destruction is sufficiently extensive to necessitate amputation. Kempe states that in the absence of treatment this complication is always fatal. Neff observed a case rate of 1.4 per million as reflected by 9 cases in 14 million vaccinations. Six of the nine cases had pre-existing serious illness including leukemia, systemic lupus erythematosus, and dysgammaglobulinemia. Not all patients who have developed this complication have had dysgammaglobulinemia, and some patients known to have dysgammaglobulinemia have been vaccinated without the occurrence of vaccinia necrosum. Kempe[2] has described 20 patients with vaccinia necrosum who showed normal antibody responses to other antigens but were selectively unable to

produce antibodies to vaccinia virus. Vaccinia necrosum is more likely to occur with primary vaccination than with re-vaccination. Treatment with VIG is mandatory and usually is effective. Also, some patients have improved following treatment with methisazone.

ECZEMA VACCINATUM The particular hazards of smallpox vaccination to the child with eczema have been widely publicized. In spite of this, eczema vaccinatum continues to occur with alarming frequency, apparently as a result of inadequate awareness on the part of physicians of the magnitude of the risks involved. The afflicted child usually has active atopic eczema, but this complication has been seen in a number of children who had only a history of eczema, sometimes in the distant past. In these patients multiple vesicles occur in the tradtional sites of involvement of infantile eczema: face, antecubital fossae, popliteal spaces (Figure 4).

Neff's survey revealed 111 cases of eczema vaccinatum indicating a frequency of about 9 per million. Of these cases, 54 occurred in children receiving primary vaccinations, 3 were re-vaccinations, and 54 of the patients were contacts of vaccinated persons. This distribution clearly illustrates the necessity to avoid vaccination not only in the child who has eczema or a history of eczema, but also in the child who will have close exposure to an individual with eczema. Kempe states the mortality in untreated patients with eczema vaccinatum is between 30 and 40 per cent, but less than 10 per cent in patients who are treated with VIG. In one series studied, Kempe showed that antibody response to vaccination was either markedly delayed or absent. Some patients with eczema vaccinatum have a relatively mild illness; this is more likely to be the case when a small number of ectopic vesicles are present. In general, however, morbidity is significant as evidenced by Neff's study in which patients with eczema vaccinatum comprised one-fourth of the total complications but one-half of the days of hospitalization. Methisazone also has been used effectively in the treatment of eczema vaccinatum.

GENERALIZED VACCINIA Generalized vaccinia consists of recurrent crops of new vesicles around the original vaccination site and elsewhere on the body, usually associated with fever and malaise. Neff's review disclosed 134 cases for a case rate of about 20 per million. Of his patients, 130 had received primary vaccination, 3 repeat vaccination, and 1 was merely a contact to a vaccinated person. There were no deaths in that group. Kempe states that untreated cases may have intermittent viremia for as long as 6 months after vaccination. Approximately 50 per cent of these patients require hospitalization. Treatment with VIG is recommended. Morbidity generally is less than with eczema vaccinatum. Figure 5 shows generalized vaccinia in a child who had a past history of atopic eczema, but who did

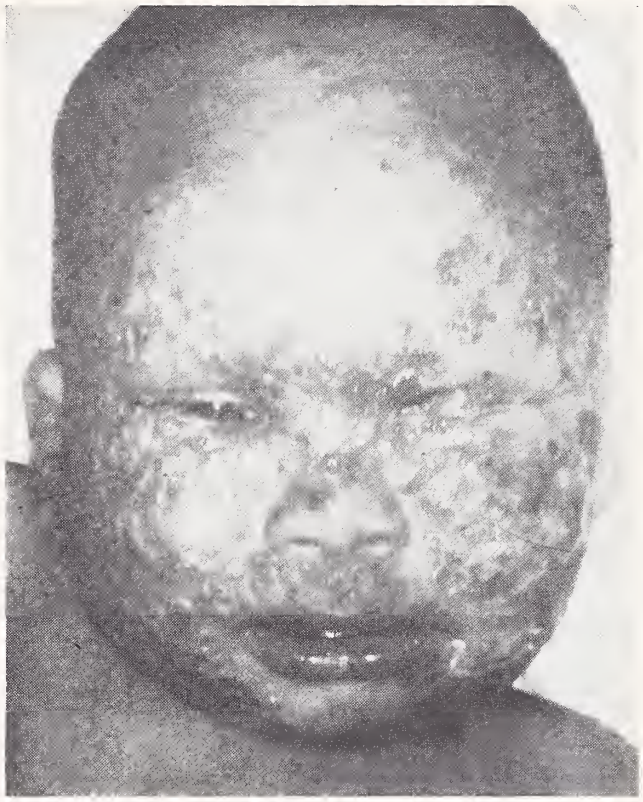

Figure 4

Figure 5

not develop the characteristic pattern of eczema vaccinatum.

BULLOUS ERYTHEMA MULTIFORME Bullous erythema multiforme appearing 4 to 14 days after vaccination and associated with considerable morbidity has been observed infrequently. Neff's survey disclosed 6 cases. In most of these patients the onset was 4 to 14 days after vaccinaton; however, in one patient lesions first appeared 36 days after vaccination. These patients generally have not received VIG therapy.

FEVER, COMA, AND DEATH A fulminant illness with extreme fever, coma and death occurring 9 to 10 days after vaccination has been reported.[24] Autopsy has shown wide-spread dissemination of the virus to all organs, but no histologic evidence of encephalitis.

SUMMARY

The complications associated with routine vaccination against smallpox, while important by virtue of their frequency and seriousness, are not now deemed sufficiently dangerous to discontinue the procedure. Approval and release of a more highly attenuated and safer virus strain is eagerly awaited.

Significant advances have been made in the treatment of vaccination complications. As always, however, treatment is far less satisfactory than prevention and, in spite of the fact that one-half to two-thirds of reported complications are at least theoretically preventable, current data do not suggest a decline in incidence. Presumably this reflects both a low level of awareness on the part of health professionals and inadequate efforts to identify those vaccinees who are at high risk or have high-risk family contacts. Inquiry regarding a history of penicillin reaction prior to administration of that drug has become an established routine which the physician or his aide is expected to follow. A similar search for immunologic deficiency states, immunosuppressive therapy, and eczema among vaccinees or their contacts is equally mandatory.

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Family Practice Examination

The American Board of Family Practice will give its next certification examination in various centers throughout the United States on April 29-30, 1972. Deadline for applying to take the exam is February 1, 1972. Information regarding the exam is available from Nicholas J. Pisacano, M.D., Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex 2, Room 229, Lexington, Kentucky 40506. Please write for further details.

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The Reverse Dermis Graft— A Choice Not a Flap

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THE SKIN COVERAGE of poorly vascularized or weight bearing areas represents a challenge for the surgeon. Local flaps, distant flaps and skin grafts have all proven useful. The purpose of this paper is to present our experience with the reverse dermis graft. In certain cases, we have found the reverse dermis graft to be the procedure of choice.

Hynes[1] described the skin-dermis graft as an alternative to the direct or tubed flap. He partially decorticated bare bone (tibia) and allowed it to granulate for two weeks. A reverse dermis graft was then applied with a thin split thickness skin autograft to cover the reverse dermis graft as a physiologic dressing. The reverse dermis graft usually was successfully transplanted but the initial split thickness skin graft usually did not take. The first dressing was in one week. Four days later, he applied a thick split thickness skin graft to the reversed dermis graft and it usually was then successfully transplanted. The final result was a graft containing many of the properties of a flap, i.e., mobile, thick, relatively stable coverage on a bony surface, with minimal contracture.

It is common surgical knowledge that skin grafts take well on periosteum, perichondrium and healthy soft tissue. Bare bone is a poorly vascularized tissue. Stallings *et al*[2] studied skin grafts on bare bone (bone denuded of periosteum) in mongrel cats using the calvarium as the test site. It was found that the average takes of full thickness and split thickness skin grafts were 18 per cent and 22 per cent, respectively. The average take of reverse dermis skin grafts on bare bone (denuded of periosteum) was 42 per cent when the graft was kept moist with isotonic saline for five days. The rejected portion of the reverse dermis graft did not slough in the usual manner. It dried out and remained adherent to and protected the underlying bone. The rejected portion of the graft stripped away in one sheet and revealed healthy, moist bone underneath —even after three months. The authors believed the reverse dermis graft took better than the conventional full or split thickness skin graft because of the rich vascular subpapillary capillary plexus located near the junction of epidermis and dermis. This subpapillary capillary plexus was placed in apposition with the recipient bed (bare bone) by taking a dermis graft and turning it over so that the former deep surface was now superficial (reverse dermis). It was postulated that the reverse dermis graft would take better in the human because of better control of the wound and the environment.

TECHNIQUE OF REVERSE DERMIS GRAFTING

The Brown electric dermatome was used to remove 0.008 inch of superficial skin from one of the standard donor sites (usually the lateral thigh), leaving it pedicled at one end. The underlying dermis was incised the remaining full thickness and dissected from the subcutaneous tissue removing all possible fat. The dermis was then turned over and placed in the recipient bed so that its former external or superficial surface was now in apposition to the recipient bed. A variation was the use of

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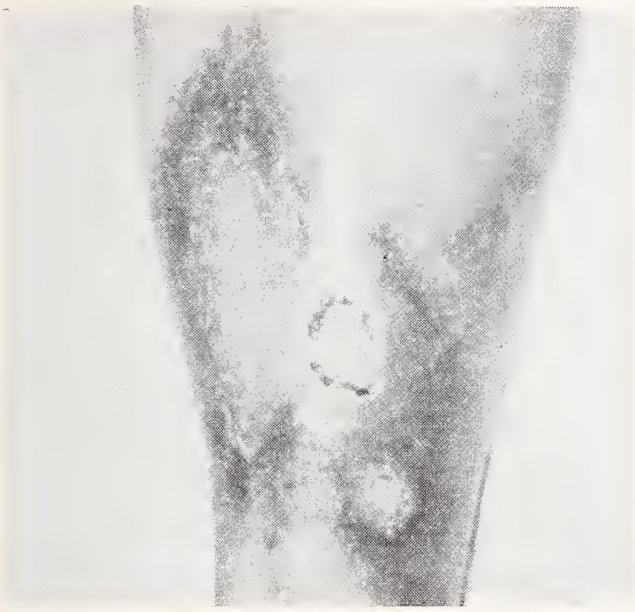

Figure 1. Chronic stasis ulcer.

Figure 2. Result at ten months. Continued usage of supportive stockings is mandatory.

partial thickness of dermis that can be quickly removed by resetting the electric dermatome at the desired depth. The pedicled superficial skin was returned to the donor site bed and sutured to the margins of the wound. A light pressure dressing was applied and the donor sites healed rapidly.

The reverse dermis graft, whether thick or partial thickness, is placed in the recipient area. The former external surface of the graft coapts to the recipient bed. The reverse dermis graft may be sutured in position or placed without sutures as desired. The key to successful transplantation in this procedure is to prevent drying of the graft. This can be accomplished by laying on a thin split thickness skin graft (STSG) as a physiologic dressing. The physiologic dressing may be removed and the reverse dermis graft can be overgrafted at 14 days. Should the surgeon elect not to overgraft, the reverse dermis graft will epithelialize from its hair follicles, sebaceous and sweat glands within one month following transplantation. A more difficult technique to prevent drying of the reverse dermis graft is to cover the graft with nonadherent gauze followed by a layer of foam rubber. The foam rubber must be injected with isotonic saline or Ringer's Lactate by needle and syringe every four to six hours for 10 days. This stent of foam rubber may then be removed and the reverse dermis graft overgrafted at 14 days or allowed to epithelialize spontaneously.

CASE REPORT

1. A 44-year-old male presented with a stasis ulcer of the left lower extremity (Figure 1). He had previously undergone ligation of the inferior vena cava for embolism. A STSG had been applied with a poor result. A thick reverse dermis graft was applied with 95 per cent success. It was overgrafted (0.020 in.) at 21 days following original transplantation. The overgraft was 60 per cent successful. The remainder of the exposed reverse dermis graft spontaneously epithelialized. The patient now had thick, healthy skin where ulcers and thin, atrophic epithelium formerly existed. His underlying problem was venous stasis. Ligation of some superficial veins and perforators going to the former ulcer areas has been performed (Figure 2). His graft is doing well at 10 months after surgery, but he will continue to wear supportive stockings.

CASE REPORT

2. A 24-year-old male sustained a gunshot wound to his right lower extremity in Vietnam. There was loss of soft tissue along with a comminuted fracture of the mid femur. At the time of our initial exam, he had exposed bare bone (femur) with osteomyelitis and soft tissue infection of the surrounding area (Figure 3).

A thick reverse dermis graft was applied over the bare bone and the surrounding in-

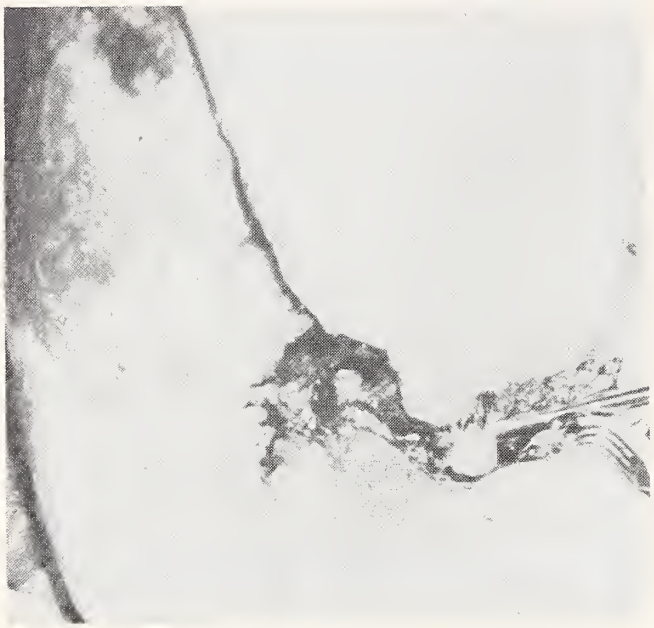

Figure 3. Bare bone (femur) with osteomyelitis and surrounding soft tissue infection from a gunshot wound.

Figure 4. Result at five months. There is a 100 per cent take over the soft tissue and a 50 per cent take over the bare infected bone.

fected soft tissue. The graft took 100 per cent on the soft tissue and 50 per cent on the bare bone. The take on the infected bare bone was undoubtedly due to the bridging effect of the dermal vasculature. The graft epithelialized within one month.

The area of osteomyelitis has continued to drain, but the soft tissue and a portion of the former bare bone is covered with thick skin. The remaining area of exposed bare bone is slowly closing, partly from ring contracture of the graft and partly from epithelial migra-

Figure 5. Defect of foot, extending beneath the plantar aponeurosis and fascia to the first layer of muscles, from wide excision of a pigmented lesion.

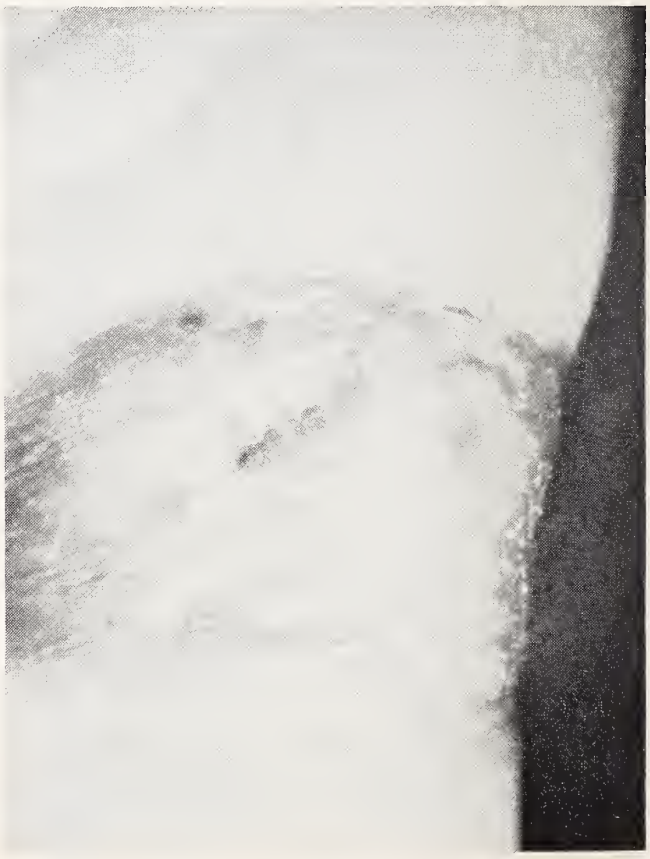

Figure 6. Result at 11 months. Part of the area is weight bearing and the graft is thick and stable to walking.

tion from the graft margins (Figure 4). It is unlikely the area will be completely healed until the osteomyelitis has resolved.

CASE REPORT

3. A 35-year-old female underwent wide excision of a pigmented lesion of the plantar and lateral aspect of her right foot (Figure 5). A thick reverse dermis graft was applied since part of the defect was in a weight bearing area. She was overgrafted at 14 days (0.021 inch) to give thicker padding for the weight bearing area. The resultant "layered graft" took 95 per cent. She is walking and wearing shoes and the graft is holding up nicely at 11 months following transplantation (Figure 6). The reverse dermis graft in this case was an acceptable substitute for a cross leg flap.

CASE REPORT

4. A 61-year-old male diabetic presented with a pretibial ulcer of his right lower extremity (Figure 7). He had required a left A-K amputation two years earlier for severe diabetic peripheral vascular disease.

Peripheral pulses were barely palpable and there was decreased hair in the right lower extremity. A partial thickness reverse dermis graft (0.020 inch) was applied and covered with a thin STSG. There was a 95 per cent take of the reverse dermis graft and a 20 per cent take of the physiologic dressing (Figure 8). The dermis graft was overgrafted (0.020 inch) at 21 days, leaving the successfully transplanted physiologic dressing (20 per cent) in place (Figure 9). We waited too long to overgraft as there was only a 60 per cent take of the overgraft. The graft has three thicknesses, i.e., reverse dermis that spontaneously epithelialized, reverse dermis plus a 0.010 inch STSG for physiologic dressing, and reverse dermis plus a 0.020 inch overgraft.

We discerned from this case that it is advisable to overgraft at about 14 days following transplantation. Overgrafting at 21 days was only 60 per cent successful due to the properties of self-epithelialization inherent in the reverse dermis graft. The wound healed and he has thick, stable coverage from the 95 per cent successfully transplanted dermis with and without overgrafting (Figure 10). He presently is 12 months following transplantation and he has been walking with the aid of an artificial left leg. The graft is holding up well.

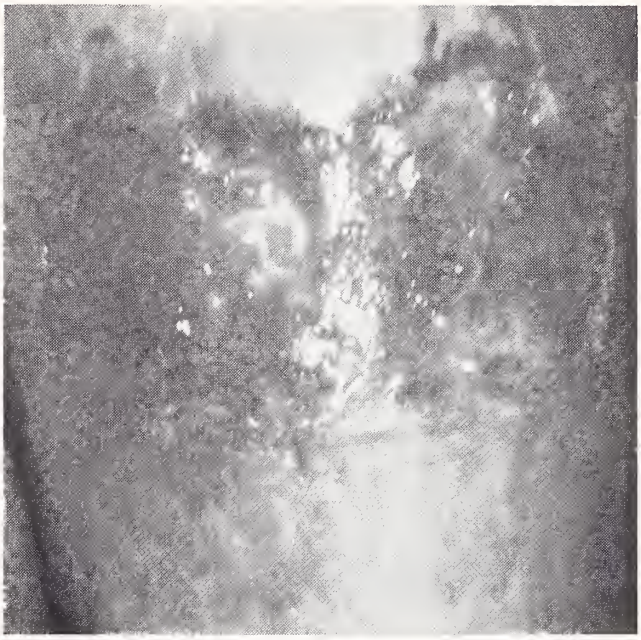

Figure 7. Indolent pretibial leg ulcer in a diabetic male.

Figure 8. Result at 21 days. The reverse dermis took 95 per cent and the physiologic dressing (0.010 STSG) took 20 per cent.

DISCUSSION

Peer and Paddock[3] and Thompson[4] have discussed the fate of buried dermis grafts. The grafts survive as true tissue transplants without being subjected to fibrous replacement by host cells. The sebaceous glands usually dis-

appear within two weeks and the hair follicles usually disappear within two months. The majority of the sweat glands survive indefinitely and continue to function. The excretory sweat duct ends blindly at the surface of the graft and the sweat gland secretion is resorbed into adjacent capillaries. The formation of microscopic epidermoid cysts is common after the second week but these are of no clinical significance. The usual natural history of these cysts is to end in spontaneous dissolution. In the rare event of clinical significance of these usually microscopic epidermoid cysts, exteriorization may be performed with a small needle in the office.

Figure 9. 0.020 inch STSG overgrafting the reverse dermis graft. The initial 20 per cent successful STSG (0.010 inch) physiologic dressing has been left in position.

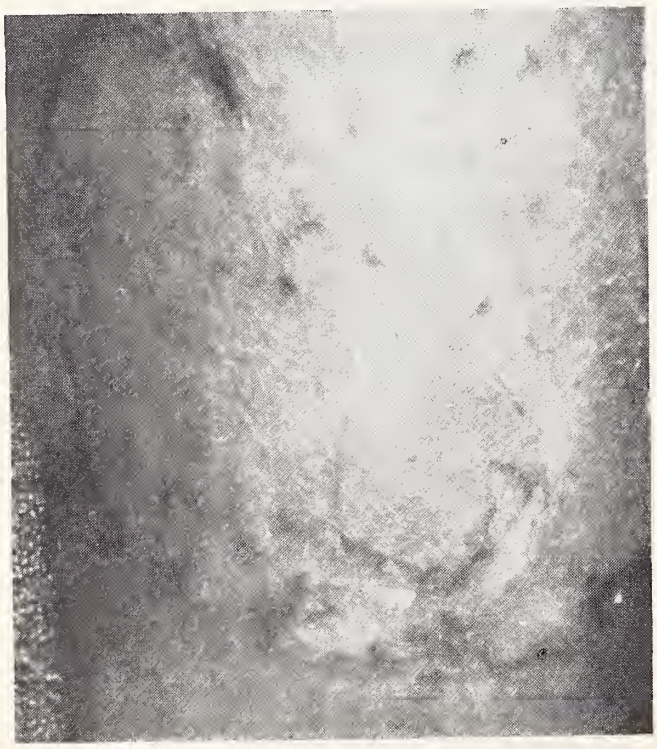

Figure 10. Result at 12 months. The graft is thick, stable and mobile.

The reverse dermis graft takes better than a STSG of equivalent thickness. This is probably due to the rich subpapillary capillary plexus being coapted to the recipient bed with some degree of inosculation of the graft and host vessels. There also appears to be a great bridging phenomenon in the reverse dermis graft allowing it to take, at least in part, in avascular areas such as dead bare bone. Overgrafting of the reverse dermis graft at 14 days allows thick coverage of a part without the inconvenience of a cross limb flap or the multiple stages required for bringing tissue from a distance as a tubed pedicle flap. Should one elect not to overgraft, the reverse dermis graft will spontaneously epithelialize within one month.

Drying out of the reverse dermis graft must be prevented or the transplantation will be unsuccessful. The physiologic dressing (thin STSG) should not be removed, even though rejected, until one is ready to overgraft at 14 days. Otherwise, there may be a superficial slough of the dermis from desiccation. It should be possible to prevent drying of the reverse dermis graft by using homograft or heterograft skin, or amniotic membrane. Synthetic materials may also be of value in this regard.

Several cases have been reported to demonstrate the versatility of the reverse dermis graft. We have also successfully used the technique in the treatment of decubitus ulcers, other stasis ulcers, and in mucosal defects of the oral cavity. Results have been encouraging. Two grafts (abdomen and heel) were lost from lack of adequate immobilization. Another graft (lower leg) sloughed three months after successful transplantation when a previously quiescent area of osteomyelitis became active.

A reverse dermis graft with varying amounts of attached subcutaneous tissue could be used to give extra padding along with the thick split skin overgraft. The dermis takes up blood supply rapidly and will, in turn, nourish some of the attached adipose tissue. This

is demonstrated by one of our recent cases where the reverse dermis took 100 per cent and the initial thin STSG physiologic dressing took 85 per cent.

Dermis has been used to extend the donor site.[5] This technique could be modified by meshing (Tanner-Vandeput technique) 0.008 inch of superficial skin and by meshing 0.010 inch of underlying dermis. The meshed superficial skin is laid into position in the usual fashion. The meshed dermis is reversed and then covered with homograft or heterograft skin to prevent drying, until spontaneous epithelialization is complete. The homograft skin should be replaced every four to five days to prevent a rejection reaction in the interstices of the meshed dermis. The resultant donor site defect would be only 0.018 inch.

The main advantage of the reverse dermis graft is that it allows graft techniques to be used to give quite thick skin coverage to an area. The resultant "layered graft" has many of the properties of a flap and does not require the prolonged immobilization of a cross limb flap. It takes well in poorly vascularized areas, and thus, is a boon to the surgeon.

SUMMARY

We recomend the reverse dermis graft, not as a panacea, but as another choice for the surgeon confronted with difficult problems in skin coverage. The reverse dermis graft, in selected cases, may be more advantageous than the cross limb flap. Drying out of the reverse dermis graft must be prevented or transplantation will be unsuccessful. The optimum time for overgrafting appears to be 14 to 16 days following transplantation of the reverse dermis graft. The surgeon may elect not to overgraft, thus, the reverse dermis graft will spontaneously epithelialize within one month.

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Assessment of Medical Students

Methods and Reliability of Rankings in Anatomy

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In designing a new curriculum for the course in gross anatomy the new statement of course objectives made it imperative to rewrite the procedures for student assessment. We decided to use the opportunity to go further, to not merely make our assessments as reliable as possible but to measure their reliability. Since the simplest methods of measuring reliability are based on ranking systems we decided to use such a system. Such an adoption also offers other advantages, not the least of which is that once established it can be compared with lists derived from admission criteria and used to test them. This comparison will be the basis of a future paper.[7]

The common methods of assessment in use can be grouped into continuous and intermittent. Either may be of the "objective" or the "subjective" type of examination.

CONTINUOUS ASSESSMENT

This type of assessment involves scoring of some aspect of the student's class performance. This can take several forms: multiple examinations, frequent essays and confrontations of various types. They must, we feel, be learning situations. The student will not unreasonably rebel if he feels that one's principal effort is expended in testing him. While this is probably true for all types of assessment, it is particularly true if the assessment process takes up much of the student's time.

Dr. Moffatt and Dr. Metcalf are members of the faculty at The U. of I. College of Medicine and serve in the Department of Anatomy. Dr. Jacobs is now a member of the faculty of the anatomy department at Michigan State University.

OBJECTIVE EXAMINATIONS

This type of examination includes any examination in which the examiner is not asked to make any decision in scoring the student. The student is expected to derive, by selection or recall, a predecided "correct" response. This includes the conventional "multiple choice" types of examination as well as identification type practical examinations. The examiner must decide whether he wishes this type of examination to be without time restriction, i.e., with a time allocation which will be more than adequate for the vast majority of the students or time limited, i.e., in which many students may fail to complete the test.

The reliability of any multiple choice examination can be and should be checked by detailed item analysis to avoid the bias which any examiner can introduce even with the most careful prechecking.[1]

SUBJECTIVE EXAMINATIONS

Common types of subjective examination in use include the essay, much criticized but still widely used in some fields, and the oral confrontation by any of its several names. Here the examiner is asked to decide how he should score the student. In addition to this problem must be considered the time the examiner needs to spend to score a series of examinations. With very large numbers of students this may reach such proportions as to render subjective assessment impossible.

TEACHING OBJECTIVES

If one is to use examination and other scores to guide the student and his administrators in regard to his future, it is obviously essential that one assesses him only in regard to things one would like him to know or to be able to derive. One must, that is, design his assessments with regard to the teaching objectives of the course.

We decided on five objectives: [2]

A. He should learn to recognize major anatomical structures in dissected specimens, normal radiographs, and the living subject.

B. He should learn to relate these structures anatomically one to another.

C. He should learn to define the primary function of each of these structures and relate this function to its anatomical structure.

D. He should learn to describe in precise anatomical terms both verbally and in writing any or all of the above.

E. At the end of the course he should pass the "State Boards Examination" in anatomy.

Each of these objectives lends itself to certain types of testing, indeed if they do not then they cannot be regarded as true educational objectives.[3]

RECOGNIZE MAJOR STRUCTURES

This objective can be tested either by specific examination or by "continuous assessment" throughout the course. The student must simply be presented with a number of "anatomical structures" and be asked to identify them. The examiner must decide whether he wishes "instant" recognition to be the criterion of success, or whether the student should be permitted to spend some time attempting to derive the correct response.

RELATING THE STRUCTURES

This can be assessed in subjective or objective ways too. The student can be presented with an objective situation (what is related to this bone at the point indicated?) or with a subjective type of situation (describe the relations of a particular structure).

Again this type of objective can be tested as part of a continuous type of assessment or by periodic examination.

DEFINE PRIMARY FUNCTION AND RELATE IT TO STRUCTURE

Again subject to continuous or periodic assessment, this objective can be incorporated into virtually any type of assessment.

DESCRIBE ORALLY AND IN WRITING

We thus committed the course assessments to include some form of written and oral subjective examination. The use of the precise terminology of any science is, we feel, an integral part of the science.

PASS STATE BOARDS EXAMINATION IN ANATOMY

This is a school objective which must be incorporated as a course objective.

TYPES OF ASSESSMENT USED IN "MEDICAL GROSS ANATOMY" COURSE

A. Each student was assessed weekly in the laboratory. As one of a group of four students who had worked together throughout, a particular student was asked a series of questions about his week's attainments. This was a teaching situation in that he was not expected to know all the answers to the questions asked. If he did not, then the answer was explained to him.

B. Each week, a group of 24 students made up of six groups of four, met for two hours with an instructor. Each group of four had previously been asked to prepare a seminar about some given aspect of the previous week's work. One of the four was now called to deliver a talk of some 15 minutes duration about the topic. This was followed by a discussion. There were six topics discussed by each 24-member class each week, therefore each student presented his seminar about one week in every four. Pressure on students' time caused us to drop seminars subsequently.

C. Twice during the one semester course, there were "formal" examinations consisting of several parts:

A multiple choice type of paper—This we felt to be essential in view of arrangements used in the State Boards Examination. It consisted on each occasion of 70 questions to be completed in 75 minutes. The time allocated was intended to be liberal.

A laboratory practical examination—70 questions, each in two parts with a total time of 70 minutes. The first portion of the question was usually an identification with the second part being a functional or relational one.

An essay paper consisting of a 30-minute essay as one from a lengthy list, normally selected from among the topics which had been selected for seminars, and a 30-minute section consisting of five "short notes" type questions from a restricted list of topics. In this way we tested the student in depth about a topic which he should have studied extensively, and at the same time more superficially over the whole range of the subject.

D. Once every two weeks we held a quiz session in which stereoscopic projection was carried out for the whole class and identification questions were raised. We did not use this as a method of assessment as we did not wish to be unfair to the appreciable portion of students unable to attain stereoscopic vision. Accordingly we allowed the students to score their own replies and hand in anonymous score sheets. We then prepared a distribution curve and posted it, enabling each student to check his own competitive performance, without any feeling that the inherent unfairness of the system was to his disadvantage.

FINAL SCORES

The course grade for the student was derived from a final score which was the average of the following four scores for each half of the course (i.e., eight scores in all):

Average weekly assessment and seminar scores (first half and second half)
The two multiple choice examinations
The two laboratory practical examinations
The two essay type examinations.

In addition to which, each of the above eight scores was ranked so that the significance of the course ranking and each examination method could be determined.

STATISTICAL METHODS USED

Significance in ranking can be tested by use of Spearman's σ[4] in which:

$$\sigma = 1 - \frac{6\Sigma^{n}_{1} \ (R_1 - R_2)^2}{(n^3 - n)}$$

Where R_1 and R_2 are rankings to be compared n is the number of readings per set.

In this case, complete positive correlation is when $\sigma = +1$, complete negative correlation is when $\sigma = -1$. Significance at the 5% level is reached if σ lies outside the range +0.15 through −0.15, while significance at the 0.05% level (i.e., P less than 0.0005) is reached if σ is outside the range 0.34 through −0.34. The number of students ranked each time (129) has been taken into consideration in obtaining these limits.

The reliability of such a ranking can be tested if the assessment on which the ranking is based can be split into two corresponding portions. If these two portions are equal in timing, circumstances and scoring technique, then the reliability can be represented by the Spearman-Brown reliability constant R_{22} where

$$R_{22} = \frac{2\sigma}{1 + \sigma}$$

where σ is Spearman's σ as previously determined.

We assumed that our two sets of corresponding scores, for the first and last halves of the course, could be used in this manner. While one appreciates that the time delay between the two scorings must diminish the Spearman-Brown reliability constant somewhat, it does nevertheless present one with a figure which errs in being too small rather than in being too large. We felt that the minimum figure so obtained was a useful one.

The values of Spearman's σ for each method of assessment and the values of the Spearman-Brown constant derived from them are seen in Table 1.

STUDENT RESPONSE

Before one can begin to interpret the results of student assessment, one needs further information on student response. It is important that assumptions about the time allocations to various portions of the examinations are correct. Whether a test is intended to be time restricted or not time restricted, it must be possible to determine whether the desired environment was achieved. Similarly one wishes to know to what extent the examinations, as held, acted as learning and as motivational experiences.

We therefore issued a questionnaire to our students and sought to measure attitudes on certain questions. The appropriate section of the questionnaire was as follows:

SECTION IV—ASSESSMENT

Two comprehensive examinations have been scheduled in addition to the continuous (weekly) assessments. Each examination consists of four parts: 1) practical (identification); 2) objective (multiple choice); 3) essay; and 4) short notes. Your achievement in Medical Gross Anatomy is based on a composite evaluation of seminar presentations, weekly assessment, and examination results.

A. Consider the amount of time allotted to each part of the examination in terms of these criteria:

A—far too little time allotted
B—too little time allotted
C—adequate time allotted
D—too much time allotted
E—far too much time allotted

Practical examination—*(70 minutes for 70 stations with two questions each)*
Multiple choice examination—*(70 minutes for 70 questions)*
Essay—*(30 minutes to write one essay on a topic selected from a list of six)*
Short notes—*(30 minutes to write about five topics selected from a list of eight)*

B. Examinations are intended to provide students with a significant learning experience, as well as to assess their knowledge of the subject in relation to the questions asked. Rate the educational value of each part of your examinations according to the following scale:

A—highly significant
B—significant
C—neither significant nor insignificant
D—insignificant
E—highly insignificant

Practical examination
Multiple choice examination
Essay
Short notes

C. Evaluate the standard of difficulty of each part of your examination on the following basis:

A—extremely difficult
B—above average difficulty
C—average difficulty
D—below average difficulty
E—extremely easy

Practical examination
Multiple choice examination
Essay
Short notes

D. Examinations should provide a motivational stimulus; however, such motivation is difficult to assess. Utilize this scale for your rating:

A—highly motivated to study
B—slightly motivated to study
C—maintained motivation
D—no motivation
E—interfered with planned study

Practical examination
Multiple choice examination
Essay
Short notes

E. The examinations were designed to test you on the information you acquired in Medical Gross Anatomy. With this in mind evaluate the fairness of the examinations:

A—fair
B—intermediate degree of fairness
C—intermediate degree of fairness
D—intermediate degree of fairness
E—unfair

Practical examination
Multiple choice examination
Essay
Short notes

TABLE I

CORRELATION AND RELIABILITY OF ASSESSMENT TECHNIQUES USED

Method Evaluated (See Text)	Spearman's σ	Spearman-Brown Reliability
a. Subjective Methods:		
Continuous assessment	0.19	0.32
Essay paper	0.24	0.39
b. Objective Methods:		
Multiple choice	0.49	0.66
Laboratory practical	0.61	0.76
Objective methods combined scoring	0.65	0.78
c. Overall Combined Ranking	0.67	0.80

ANALYSIS OF STUDENT PERFORMANCE

As can be seen from Table 1, the overall reliability of the student rankings was very high (0.80) and was in fact higher than the combination of two scores from any single examination method would have been. As has already been discussed, this represents a minmal figure of reliability. The two objective tests each gave a higher reliability than either of the two subjectve methods, though all the methods produced a valid ranking as indicated by their consistency.

ANALYSIS OF STUDENT RESPONSE

Figures 1-5 indicate the student response to the questionnaire. The question asked and the meaning of any reply are summarized in each figure. The time allocation to each system of assessment can be judged from Figure 1. Fig-

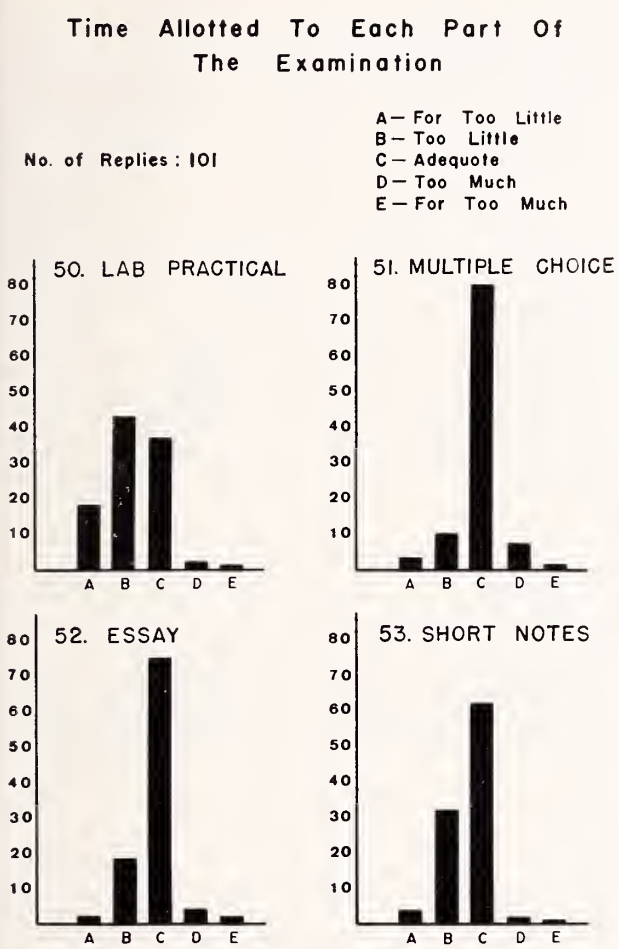

Figure 1

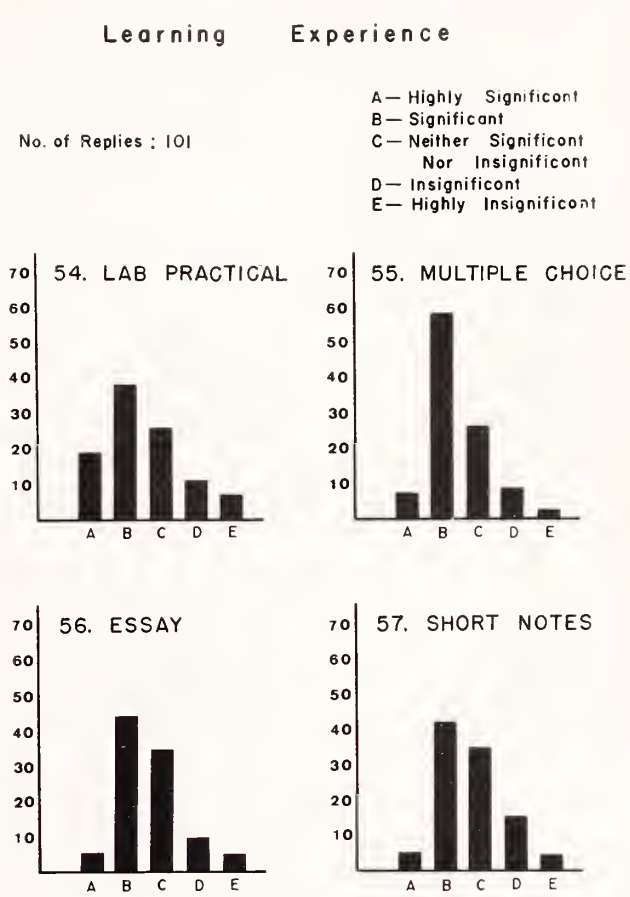

Figure 2

ure 2 we interpret to indicate that all methods produced a learning experience. This was to some extent achieved by publication of correct responses to the objective tests and returning marked papers in the subjective ones. The difficulty of the tests is indicated in Figure 3, their motivational influence in Figure 4. Clearly most students found the examinations to produce some motivation even though (or perhaps because) none of them were easy. Finally a surprisingly large number of students stated, anonymously, that they felt that our testing system was fair (Figure 5). It is difficult to know to what extent this latter point is inherent in such a testing system and to what extent it indicates the rapport which readily develops between student and faculty during this type of educational experiment.

DISCUSSION

The function of a student assessment system should be:

1. To test the achievement by the student of

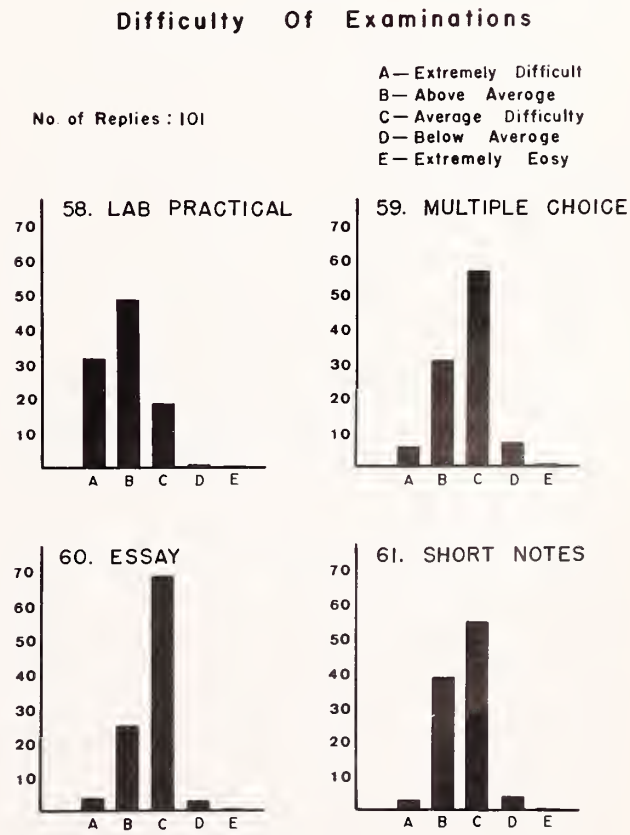

Figure 3

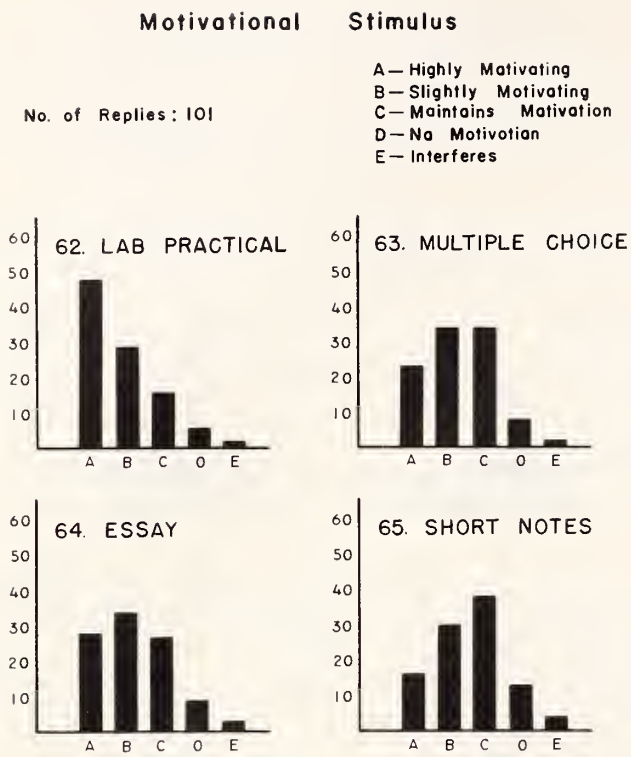

Figure 4

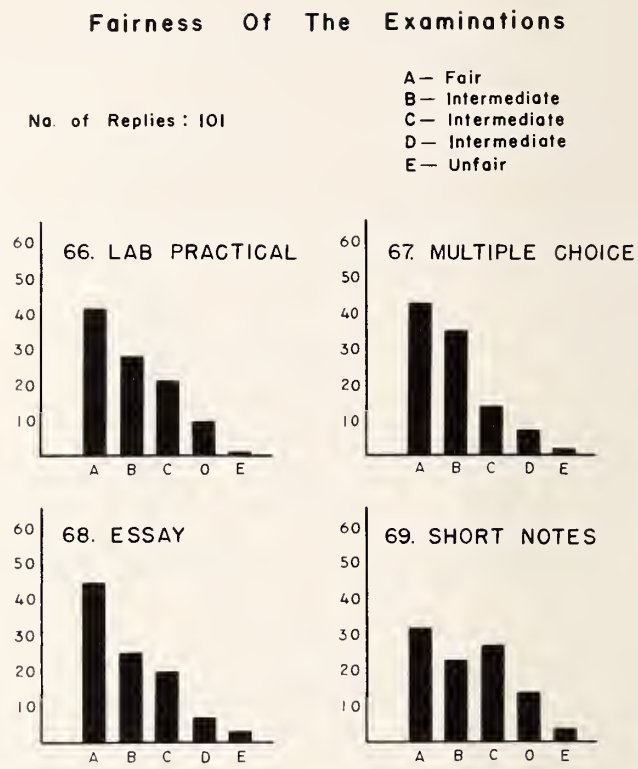

Figure 5

the teaching objectives (only these objectives) as previously defined.

2. To be as reliable as possible in production of the desired final result, be it a ranking system, a grade system or a pass/fail system. The only differences in such systems are that systems other than ranking concentrate their attention on only a portion of the class. Medical students who complete a course at The University of Iowa College of Medicine are awarded a grade of Honors, Pass or Fail. This does not demand any less reliability when individual students are to be discussed.

3. To be of known reliability. Since reliability is difficult to define in any system where less than all the class are accurately scored, we have ranked all the students by each method.

That the assessment should test the attainment of the behavioral characteristics listed as teaching objectives is obvious enough. This merely says that when one has decided what the student needs to know, one designs both teaching course and examination system accordingly.

Similarly, one tests all the characteristics and only the characteristics which one has already defined. This means that one needs to look not only at the content of the examinations, but at their demands on the student. If one wishes some interpretive effort from the student, does one wish him to remember any basic information? Does one wish him to be timed?

No one would dispute that it is desirable for the result of any assessment system to be as accurate as possible. There has been much dispute in the past as to how this should be achieved. Much of the dispute has centered around a discussion as to the reliability (reproducibility) of objective, especially multiple choice, tests relative to that of essay tests.[5] The discussion has been largely "won" by the proponents of the objective test, but as can be seen from the Iowa experiment, this is not what we need to know. We should be asking how total reliability of assessment can be reached, and whether we should be using some data about student performance and ignoring other data. The answer is that ANY valid method of assessment will increase the accuracy of the system if combined with the other methods used. In our experiment, the reliability achieved by combining the scores in the two pairs of objective tests and re-ranking was greater than that achieved by either

method alone (0.78 against 0.66 and 0.76 for either method alone). Inclusion of the subjective tests raised the reliability further to 0.80. Rather than deciding whether objective or subjective tests are better, we can conclude that addition is superior to substitution.

Further the student, as well as his teacher, desires as accurate and as fair a method of assessment as possible. Student rapport need not be lost in an effort to achieve this. We would not accept the proposition by Bridge[6] that examination of a class by its teachers need change the role of the teacher as guider and helper rather than taskmaster and judge.

SUMMARY

1. Medical students at The University of Iowa are awarded course grades of Honors, Pass or Fail.

2. A course in gross anatomy for medical students at The University of Iowa has been used to test various methods of assessment of students.

3. All the methods used to test the students were valid.

4. Objective and subjective methods have been used, the objective methods were more reliable than the subjective ones.

5. The reliability of assessment was improved by combining all statistically valid scores available for each student, i.e., subjective as well as objective.

6. The multiple examination system had advantages other than accuracy, in that the students found the examinations to be motivational stimuli and learning experiences.

7. A rank order with an overall reliability of 0.80 (Spearman-Brown) has been derived and is to be used for other statistical analyses.

ACKNOWLEDGMENTS

We would like to express our gratitude to Drs. Norah F. Metcalf and D. A. Griffiths for assisting in the scoring procedures, to our graduate teaching assistants M. R. Mickelson and D. C. Randa for much general assistance and to all our medical students (class of 1972) for their enthusiastic support and cooperation.

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I REMEMBER WHEN—DO YOU?

The time when Dr. McKim Marriot gave a presentation at a meeting in Sioux City, Iowa, at the Sioux Valley Medical Society Annual Session in 1931. Dr. Marriot was head of the Department of Pediatrics at Washington University in St. Louis. He started his address by stepping up to the podium with a whisky bottle in one hand and a can of Carnation Evaporated Milk in the other. He raised both hands high and said, "Gentlemen, here we have the ingredients of the best milk formula for your babies."

In the whisky bottle was a brown colored fluid and this caused a considerable reaction. Dr. Marriot hurried to explain that the fluid was Karo syrup with water. Because of this talk and other talks on the subject the whole matter of infant feeding changed because of the simplicity. This approach replaced the numerous formulas (modified by various substances such as bacillus acidolphilus) which had previously been used to modify cow's milk. Numerous other preparations of cow's milk, varying the proportion of water and adding this and that, gave a rather confused picture, but this simplification recommended by Dr. Marriot caused a big change in infant feeding and particularly the ease of infant feeding. Also, it pronounced the death note for condensed milk which heretofore had been used to considerable degree, but had been found deficient to the degree that it was not satisfactory. It was interesting and rather dramatic to watch the change in the next few years in infant feeding, as a result of presentations such as the above.—O. N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

Editorials

BIBLIOGRAPHIES

Does a complete bibliography enhance the value of a scientific paper for most readers? How many JOURNAL readers utilize the bibliography to draw out the references for further study? I venture to say that only a small number of physicians do this. Readers more commonly scan the articles, and spend more time reading those which have a special personal interest.

In order to provide more space for scientific articles, we are proposing to delete the more extensive bibliographies which frequently appear with the published manuscripts. We would retain these bibliographies in the JOURNAL office, and provide a copy to the interested reader on request. This practice will allow at least one or two additional pages for published materials. Several journals have done this with success; others use a very abbreviated form of bibliography. Should the cries of anguish and wailings of despair from JOURNAL readers indicate the unacceptability of this idea, we can always retreat.

HEPATITIS AND BLOOD DONORS

Since the original publications of Blumberg[1] and Prince,[2] much data has been accumulated on the testing and in the geographical distribution of the Hepatitis-Associated Antigen (HAA). The social and medico-legal problems inherent in the transfusion of HAA positive blood have had much publicity in the past several years. The American Association of Blood Banks (AABB) Committee on Standards has recently[3] issued changes in the "Standards for Blood Banks and Transfusion Services" that make it mandatory that all donors' bloods be tested for the HAA.

Despite the rapid progress of testing and the escalated research underway, many important variables in the practical mass screening of the antigen remain. Significant differences in testing the same sample have been reported using different techniques. The commonest method used is the Agar-Gel Diffusion (AGD) which is easy to set up but requires a minimum of 24 hours to complete and lacks sensitivity. A more sensitive procedure is that employing Counter-electrophoresis (CEP) which appears to be between 10 to 16 times more sensitive[4, 5, 6] than the AGD method and offers the advantage of taking between 60 and 90 minutes to obtain the results. Other more sensitive techniques, not yet applicable for the mass screening of blood donors are complement fixation (CF), Hemagglutination-inhibition (HAI), and radioimmunoassay (RIA) methodologies. Other serious variations revolve around modification of existing methods. Important discrepancies arise due to three basic problems: (1) the methodology used is poorly standardized, (2) the antisera available varies in origin, potency and specificity, (3) the interpretation and reading of weak positive tests is difficult. One important variable is the source of antibody used to detect the antigen. Significant differences are found[7, 8] when guinea pig hyperimmune sera is used as opposed to human material. In addition, there

are definite differences between various human sera when tested against batteries of known HAA positive patients. This leads to the speculation of both species specificity and the multispecificity or lack of such of the antibody used. Presently the sole commercial Division of Biological Standards (DBS) licensed antisera available is guinea pig in origin. Standardization of technique should present little problem to the laboratory, but the availability and specificity of the antisera used are of great concern.

The HAA is a protein with a varying amount of lipid. It possesses the electrophoretic mobility of an a_2 globulin and shares a number of morphological characteristics with known viral structures.[9] The antigen becomes detectable 35-120 days after exposure to contaminated blood products and persists from one week to three months.[10] The antibody, by contrast, can disappear in five to seven days; this transient-like property making it difficult to detect and consequently harvest and use in the detection of other antigen-positive individuals.

The need for standardization of test procedures is obvious. Blood banks will have difficulty in carrying out testing for the HAA until the problems outlined are satisfactorily resolved. While great progress has been made in the detection of HAA positive blood donors, it should be clearly understood that current evidence indicates that not all transfusion-associated hepatitis can be prevented by the screening procedures presently being used; therefore, there can be no implied guarantee that HAA negative blood will not produce hepatitis in the patient.—ARTHUR SIMMONS, LCSLT, *Associate Hematologist, Assistant Professor, Department of Pathology, University of Iowa.*

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AS OTHERS SEE US (WITH MUCH ENVY)

Friends who spent a month in Europe this summer had an unusually interesting and rewarding experience, pertinent to some of the controversial issues current in the United States today.

In the course of their journey this couple visited numerous relatives in a Communist-dominated nation in Eastern Europe. This wife, who had learned to speak and write the native language, had corresponded with several cousins for many years. Upon their arrival in the capital city the couple received a warm reception from relatives who had gathered from far and near. They enjoyed three days of intimate association with relatives whom they had never seen before.

They found their cousins and their families to be intelligent, well-educated and hard working people. Though qualified by education and training for executive and administrative duties, they were for the most part engaged in manual labor. Their outlook was a dismal one with little hope of improvement. These people are not permitted to cross the border of their country and without exception they asserted they would give everything they possessed if they could emigrate to the United States.

Upon our friends' departure they were accompanied to the railroad station by the entire group of relatives, tears streaming down their cheeks, sad that they could not accompany them back to this land of freedom and of hope.

On their journey homeward our friends reflected at great length on the privilege of being citizens of these United States of America, appreciating more than ever before how fortunate they are.

Judging from many critical reports and comments in the press there are many divisive forces in this country of ours today. There is a lack of staunch loyalty, of patriotic zeal, and appreciation for the freedom and the opportunities which citizens of this nation enjoy. Selfish interests go to almost any length to support their cause, to the detriment of the common welfare and the unity of the nation. It would appear that now is the time for everyone to put their shoulders to the wheel to make these United States of America truly *United.*

We do not look upon our nation as utopia but certainly hearing about this visitation behind the Iron Curtain gives us reason to appreciate its virtues and induce the body politic to dissolve the divisive forces and seek to unite us for the welfare of all.

INFORM DOCTORS OF COSTS

The Greater Kansas City Medical Bulletin for August tells of an innovation at the Sioux Valley Hospital in Sioux Falls, South Dakota, which deserves the attention of hospital administrators and medical staffs. The new program cannot fail to make an impression upon attending physicians as to their role in the cost of hospitalization.

The Sioux Falls hospital now makes a practice of giving the physician a copy of the hospital bill the patient receives when he is discharged. Each week the hospital selects a patient at random and places a copy of his bill in the physician's box. This provides the doctor an opportunity to see and to assess the effects of his decisions and orders on the costs to the patient. The project has reportedly received favorable comment from members of the medical staff and it surely has the support of their patients.

The primary purpose of the project is to involve physicians as more active participants in health care management in the hope that by cooperative effort the costs of health care in the community can be lowered. The program keeps the physician in the know as to current prices of hospital rooms, diagnostic tests, and the many procedures and services provided for patient care. He is thus better qualified to advise patients of the expected and unexpected costs of hospital care.

In his concern for patient costs the physician should insist upon a continuing review of hospital charges and should cooperate with the administration and the staff utilization review committee to accomplish this.

Unquestionably the greatest benefit of this innovation is to the physician himself. After a review of the case history and the hospital bill he will among other things ask himself (1) Was hospitalization really necessary? (2) Did I admit the patient for a diagnostic work-up or for treatment? (3) Were all the diagnostic tests ordered really necessary? (4) Were the therapeutic measures appropriate and necessary?

Apropos this subject, some patients covered by Medicare and Blue Cross never receive a statement from the hospital and are completely unaware of the cost of their hospital care. It would seem fitting that they receive a copy in order to be fully aware of the financial help they have received.

November Conference on Learning Disabilities

The first conference of the Iowa Association for Children With Learning Disabilities will be November 12 and 13 at the Kirkwood Hotel in Des Moines. Speakers include Doris Johnson, assistant professor, Learning Disabilities Center, Northwestern University, Evanston, Ill.; Charlotte Larson, assistant director of special education, Joliet, Ill.; and Norma Biando Woodward, consultant, Community Mental Health Clinic, Davenport. Physicians on the program are Walter M. Block, M.D., medical director, Child Evaluation Clinic, Cedar Rapids, and Gerald Solomons, M.D., director, Child Development Clinic, University Hospital School.

Interested physicians may obtain information by writing the IACLD Conference, 5105 Waterbury Rd., Des Moines, Iowa 50312.

American Association of Medical Assistants

State of Iowa, Inc.

Age of Achievement

The 15th AAMA convention will be November 9-13 at the Marriott Motor Hotel, Atlanta, Georgia. This is an opportunity for medical assistants to combine a lovely fall vacation with attendance at the national convention. A wonderful pre-convention tour is scheduled November 4-7 to Freeport, Grand Bahamas. Convention registration begins November 6, and continues daily. On Sunday, November 7, a tour is scheduled to Stone Mountain. Georgia's Stone Mountain is the largest solid mass (583 acres) of exposed granite on earth. The figures of Confederate heroes Jefferson Davis, Robert E. Lee and Stonewall Jackson stand on the north face of Stone Mountain and a 3,800 acre park surrounds it.

A tour through "Gone With the Wind Country" is scheduled Monday, November 8. A CMA Seminar entitled "People Under Stress" is scheduled for 8:30 a.m. to 12:30 p.m. In the afternoon, commencing at 2:30 p.m., rap sessions will be held on parliamentary procedures, publications and dues procedures. A CMA test construction workshop will be at 2:30 p.m. on Monday.

The convention program commences on Tuesday, November 9. At 8:30 a.m. the house of delegates convenes followed by a candidate conclave. Reference committees will meet at 10:30 a.m. The ribbon cutting to open exhibits is set for 12:30 p.m. The Mini-Test, which is a simulated CMA examination, will be at 1:30 p.m. In the evening "Exploring Underground Atlanta" sounds exciting.

The polls open for voting at 7 a.m. on Wednesday, November 10, and the house of delegates convenes at 8:30 a.m. Films for chapter programs, "Reel Review," will be from 2-5 p.m. and an alternate program, "Hear Here!" which is an effective listening program is also scheduled. The Board of Trustees will meet at 4 p.m. and a 6 p.m. CMA reception dinner will follow. This is open to everyone.

On Thursday, November 11, from 8:30 to 9:00 a.m. there are greetings from Georgia dignitaries. An education session, 9:30-11:30 a.m. includes the following speakers and their topics:

"Kidney Failure: Artificial and Transplanted Organs"—John H. Sadler, M.D.

"The Right to Live: The Price of Survival"—Elbert P. Tuttle, M.D.

"The Right to Die: To Walk Not Alone"—Panel Discussion presented by a team from the Atlanta Regional Nephrology Center.

A Thursday luncheon will honor the president of the American Medical Association, Wesley W. Hall, M.D., Reno, Nevada. Specialty sessions will be from 2:30-4 p.m., to include family practice, pediatrics, obstetrics and gynecology, radiology, ophthalmology, orthopedics, medicine and surgery. At 4:20 p.m. rap sessions on education will be held. A reception and Gone-With-the-Wind Gala Costume Party will be at 7 p.m. with featured entertainment, including Charlie Jones and Authentic Washboard Band from Sea Island, Georgia.

On Friday, November 12, there will be a 7:30 breakfast for medical assisting instructors. An education session featuring Orie E. Myers, Jr., Vice President for Business and Director, Woodruff Medical Center, Emory University, will begin at 9 a.m. His topic is "Human Relations Factor in Medical Assisting." A panel, "The Age of the 80's," with moderator, David G. Welton, M.D., is scheduled at 9:45 a.m. At 12 noon an awards luncheon will be held. A special seminar "Achievement Through Education" will occur at 3 p.m. There will be rap sessions on parliamentary procedure, publications and dues procedures. At 7 p.m. a reception and inaugural banquet will be held.

On Saturday, November 13, a farewell breakfast will be held at 9 a.m. There will be an introduction of new officers, trustees and national committee chairmen. The orientation of national committee chairmen and members will commence at 10 a.m., with a conference of state presidents and presidents-elect at 11 a.m. The 1972 Board of Trustees Meeting will be from 2:30 to 5 p.m.

On Sunday, November 14, post-convention tours are scheduled as follows: (1) Freeport/Grand Bahamas, and (2) Safari to Savannah.

The convention is open to all medical assistants. If you are not an AAMA member the 1971 meeting will provide an excellent opportunity to become acquainted with the organization and visit one of our historic Southern cities at the same time. You may contact American Association of Medical Assistants, One East Wacker Drive, Suite 1510, Chicago, Illinois 60601, for registration forms.

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40-50 pounds:		¾-1 tsp. q. 3-4 h.	
30-40 pounds:		½-¾ tsp. q. 3-4 h.	
20-30 pounds:		¼-½ tsp. q. 3-4 h.	
15-20 pounds:		⅛-¼ tsp. q. 3-4 h.	

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Woman's Auxiliary News

National Convention Summary

The 48th Annual Convention of the Woman's Auxiliary to the AMA convened June 20-24 in Atlantic City, New Jersey. Mrs. R. C. L. Robertson, 1970-71 national president, presided at all sessions.

Addressing the AMA House of Delegates and convention participants, President Richard M. Nixon told the AMA "the responsibility for the health of this nation is in your hands" and called America's doctors "the indispensable front-line soldiers." He urged doctors and doctors' wives to become involved in politics. "America at this time needs leadership from those in the medical profession, and your wives, the AMA auxiliary that I know is meeting here in Atlantic City with you—all across this country, not simply in the areas that affect you directly, but in the area of national problems," Mr. Nixon said. The President urged physicians to become community leaders and to talk realistically about drug dangers, particularly with young people.

Walter H. Johnson, chairman of the board of Myers-Infoplan International, gave the keynote address. He declared that society has become overspecialized in education, in the professions, in public affairs and in so doing has complicated life and bred frustration. Mr. Johnson stated that we should be ourselves, not the doctor's wife. We can keep the practice of medicine and the profession by applying our brains, energy and talents to communicating with people.

Speaking at a June 21 luncheon, Walter C. Bornemeier, M.D., AMA president, congratulated Auxiliary members for their unselfish devotion and expenditure of time and money to make this country a better place in which to live.

The Honorable Patricia Reilly Hitt stressed at a June 22 luncheon that there is much that is good about the American health enterprise. Mrs. Hitt, an assistant secretary in the Department of Health, Education and Welfare, emphasized the main thrust of any health proposal—preventive medicine.

On June 23 Mrs. G. Prentiss Lee of Portland, Ore., was installed as president of the Auxiliary. In her inaugural address, Mrs. Lee pointed out that the Auxiliary recognizes the importance of health education and historically, as an organization, has been concerned with health education. The new president announced a national health education conference for women's organizations to be co-sponsored by the AMA and its Woman's Auxiliary. Mrs. Lee encouraged auxiliary members to maintain their interest and enthusiasm and to use their imagination to help generate faith and pride in medicine. She called on members to add luster to the medical profession by joining forces with the Auxiliary and by giving of themselves.

It was a privilege to attend this convention and to represent the Woman's Auxiliary to the Iowa Medical Society.

Ruth Tenney
President

Help WASAMA!!

Would you like to be a helping partner to medical students' wives?

Wouldn't it give you a warm feeling to know you helped the Woman's Auxiliary to the Student Medical Association? A $5 sustaining membership will assist their organization in doing these things:

. . . help an intern's wife find new friends in a new town;

. . . help a young foreign doctor's wife learn about our customs and the best ways to fit into the medical community;

. . . sponsor Explo 70's Day at a medical school to encourage junior and senior high school students to find a health related career;

In many ways future Auxiliary members are working to take their place in providing better health for our country.

The National Legislative Chairman of WASAMA has asked members to *Be Interested, Be Informed* and *Become Involved.* Help them do so by sending a check TODAY! You will receive the WASAMA newsletter, "The Spectrum," where you can read of their progress.

Mrs. Max E. Olsen
WASAMA Liaison

National Health Insurance

How soon? What kind? And at what cost?

Protection for everyone against some or all costs of health care may soon be enacted into law. Recent opinion polls indicate most Americans are receptive to the idea. And most members of Congress are now sponsoring one or more of the national health care proposals.

In range and scope, these proposals vary; some would, in effect, nationalize health care services; others would function within, but with modifications of the present system. Some would provide more or less comprehensive ("basic" and "catastrophic") health care coverage; others would provide only for the catastrophic costs of protracted illness.

There is the basic question of who will pay for what portion of such a program. While disagreeing on other matters, Senator Kennedy and HEW Secretary Richardson recently agreed that the nation's health bill could reach $100 billion by 1974. Whichever program Congress finally enacts, and whatever the cost, it will have to be paid for—in out-of-pocket costs, in higher taxes, higher prices for goods and services . . . or some combination of these.

What follows is a summary of the leading health insurance proposals now before Congress, showing the similarities, differences and relative impact on people. There is not a "bargain basement" health care scheme. There is no such thing!

AMA'S MEDICREDIT

The Proposal. Comprehensive coverage for everyone under 65 (Medicare continuing for the over-65's). Taxpayer chooses any qualified health plan, pays only for a portion of basic coverage. Government helps pay the premium. Government pays for basic protection for the poor, and catastrophic coverage for everyone.

Benefits and Costs . . . to everyone, broad spectrum of outpatient medical services, plus unlimited hospital care. Modest deductibles. (Note: the same benefits are available to all.)

Expected Tax Impact. Under $200 for a family with $10,000 income in 1974 (AMA estimate).

Estimated Public Tax Cost. $12.1 billion in new money (AMA estimate).

NIXON ADMINISTRATION PLAN

The Proposal. Two types of coverage—for wage earners and their families, and for the poor. Employers supply coverage to employees and families, eventually paying 75 per cent of the cost. Would utilize existing carriers; emphasis on prepaid group plans. Government-paid coverage for certain poor.

Benefits & Costs . . . to the poor, normal outpatient medical services, including 8 physician visits a year per family member; 30 days of hospital care per family member. Modest out of pocket expenses, scaled to income level. (Note: poor single persons and poor childless couples are not covered by this proposal.)

. . . *to wage earners* and their families, basic and hospital care up to $50,000. Moderate deductibles required. Prices would rise, because the program would add to the cost burden of businesses.

Expected Tax Impact. $466 per household in 1974 (HEW estimate).

Estimated Public Tax Cost. $12.4 billion a year, not including possible subsidies to small business (HEW estimate).

KENNEDY-GRIFFITHS PLAN

The Proposal. The federal government would take over virtually all U. S. health care.

Benefits & Costs . . . to everyone, most medical and hospital care is provided, with no out of pocket expenses for covered services.

. . . *to wage earners* and their families however, taxes would have to rise considerably to meet the costs of the program—to about three times present taxes for federal health programs.

Expected Tax Impact. About $574 for a family with $10,000 income in 1974 (AMA estimate). HEW estimates the Kennedy-Griffiths plan would have a tax impact of $1,271 per household in 1974.

Estimated Public Tax Cost. $68 to $77 billion in 1974 (estimates of Senator Kennedy and Social Security Administration, respectively). In contrast, Medicare and Medicaid, together, cost about $12 billion in fiscal 1970.

SENATOR LONG'S PLAN

The Proposal. Catastrophic coverage, only, for persons under 65 who qualify under Social Security.

Benefits & Costs . . . to everyone, federal government begins to share the costs after the 60th day of hospital care or medical expenses of $2,000. Each day thereafter, patient must pay 25 per cent of the Medicare rate for hospitalization, plus 20 per cent of physician and other medical costs. (Note: These payments required of all, including the poor.)

Expected Tax Impact. Not available.

Estimated Public Tax Cost. Not available.

AMA-ERF Contributions Hit New High

One highlight of the national convention of the Woman's Auxiliary to the AMA in Atlantic City this June was the report on AMA-ERF contributions.

For Iowans in attendance this report was a special source of pride since the national Auxiliary fund chairman is Iowa's Mrs. Howard (Janet) Ellis.

During the 20 years in which the Auxiliary has participated in this project, it has raised $4,747,-010.47. This year our contribution was $550,927.01, the first time we have raised over a half million dollars. John Chenault, M.D., president of AMA-ERF, paid special tribute to the Auxiliary for its work on behalf of the fund.

Of the total, $487,565 was allocated as unrestricted funds for the nation's 113 existing and developing medical schools. Another $62,033 was earmarked for the AMA-ERF loan guarantee program. That sum will enable the eight participating banks to provide loans totalling $774,412 to medical students, interns and residents.

Seven county auxiliaries received achievement awards. The Woman's Auxiliary to the Shelby County (Alabama) Medical Society was given the highest award. Its contribution averaged $100 per member. Mrs. Prentiss Lee, our national president, asked each Auxiliary pledge itself to raise at least 10 dollars per member. Doesn't sound impossible, does it, in the face of the Shelby County contribution?

How did these counties and states raise all this money? Perusing the state reports you note the sale of Christmas cards, note pads, In Memoriam cards, rose bushes, fruit cakes, toy animals, Christmas ornaments, recipes and playing cards, plus art auctions, bazaars, dinner dances, white elephant sales and raffles. One county gives a gourmet dinner each year for their husbands, cooking and serving the food for which each doctor makes a 15 dollar contribution.

Last but not least. WATCHES!!! AMA-ERF is selling watches to raise funds. Any type you can think of—cocktail watches, sport watches, pendants, lapel watches and on and on—are available, most reasonably priced and darling to look at and to wear. Hazel Lammey, Ruth Tenney and I saw them in Wisconsin at their AMA-ERF booth and we couldn't resist! We each bought one. I'm sure we will want to add this idea to our fund raising projects.

BERNIS WICKS
Vice President

Around the Hawkeye State

Buchanan County

A Homebound Handicraft Sale was held at the Buchanan County Fair in July under the auspices of the medical auxiliary. This first attempt to sell items made by the homebound was successful.

Meetings begin in September with these new officers in charge: President, Mrs. L. John Flage; Vice-president, Mrs. R. J. Moore; Secretary, Mrs. Bruce Moore; Treasurer, Mrs. S. M. Korson.

In October a garage sale will be held for AMA-ERF; the County Home Christmas Party will be given in December and the Silver Auction will be held in conjunction with a Christmas Dinner.

Pottawattamie County

Going, Going, Gone!! Watches were auctioned by Dr. Max Olsen at the annual wives' party for their husbands. The profits benefited AMA-ERF and the fun provided a relief from the usual party routine.

Swimming was followed by a country style barbecue with Drs. Maurice Margules, Michael Sebghati, and Jose Martinez manning the chefs' hats. Broiled beefburgers were served with steaming corn and all the trimmings. Dr. Hormoz Rassekh baked his specialty—fresh apricot pies for the whole group. Social? Yes—and fun!!

Scott County

Mrs. Howard Weis, Councilor of District 8, installed the new officers at the May meeting of the Auxiliary. They are: President, Mrs. E. A. Motto; Vice President, Mrs. W. S. Pheteplace; Secretary, Mrs. D. J. Hemming; Treasurer, Mrs. Thomas Garside; and Corresponding Secretary, Mrs. V. J. Glowacki.

Mrs. Erling Larson will again design the Doctor-to-Doctor Christmas Greeting. This project benefits Fairmont School.

Mrs. Ronn Hoffmann has arranged for orientation sessions for Auxiliary volunteers at Fairmont, a school for children afflicted with cerebral palsy.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park Street, Osceola 50213

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803

Personals

Drs. W. Gene Garrett and **John C. Justin**, both pediatricians, have joined the Park Clinic in Mason City. Dr. Garrett is a graduate of The U. of I. College of Medicine. He served his internship at Mercy Hospital in Des Moines and completed his residency in pediatrics at Children's Hospital in Denver. Dr. Garrett became a Diplomate of the American Board of Pediatrics in 1960 and was elected in 1961 to the American Academy of Pediatrics. Dr. Justin received the M.B. and B.S. degrees at Punjab University in India. He served his internship at the Christian Medical College and Hospital in Punjab. Later he came to Canada and served as a resident in pediatrics at Victoria Hospital in Ontario. He completed his pediatric residency at Children's Hospital in Pittsburgh, Pa. Returning to Canada in 1969, Dr. Justin became a teaching fellow in pediatrics at Dalhousie University and Izaak Walton Killam Hospital for Children in Halifax, Nova Scotia. Since 1970 he has been a full time faculty member of Dalhousie and clinical instructor at the Nova Scotia Hospital. He is also a Diplomate of the American Board of Pediatrics.

Drs. Lee J. Marven and **Darrell Doorenbos** will join **Dr. Donald Faber** in the practice of medicine at LeMars this fall. Graduates of The U. of I. College of Medicine, Drs. Marven and Doorenbos received their M.D. degrees in 1970. Dr. Marven served his internship in Roanoke, Virginia, and Dr. Doorenbos at Spokane, Washington. The three physicians will occupy a new medical clinic north of the Floyd Valley Hospital on Highway 3.

Dr. Francois M. Abboud, professor in the Department of Internal Medicine at The U. of I. College of Medicine, has been awarded a research grant by the American Heart Association to study factors regulating vascular reactivity.

Drs. Hansjoerg E. J. W. Kolder, of Iowa City, recently completed a tour of service aboard the S. S. Hope. Dr. Kolder is an associate professor of ophthalmology at The U. of I. College of Medicine.

Dr. Richard G. Runge has joined **Drs. F. T. Hack** and **L. G. Handke,** both Ankeny physicians, in the practice of medicine at the Ankeny Medical Clinic. Dr. Runge received the M.D. degree at The U. of I. College of Medicine.

Dr. Steven Moeller will join **Drs. James Hendricks** and **Robert Borgman** in the practice of medicine at Clear Lake on October 1. A 1968 graduate of The U. of I. College of Medicine, Dr. Moeller served his internship at Grady Memorial Hospital in Atlanta, Georgia. Since 1969 he has been serving in the U. S. Army, including one year in Viet Nam.

Dr. William M. Rohrbacher, long time Iowa City physician, has closed his office in Iowa City. Dr. Rohrbacher has served three generations of patients over a 58-year span. He has moved his equipment and medical records to his home at Indian Lookout, south of Iowa City, and plans to continue seeing patients—but on a less rigorous schedule. A 1912 graduate of The U. of I. Homeopathic Medical Department, Dr. Rohrbacher served his internship at Massachusetts Homeopathic Hospital in Boston. He returned to Iowa City in 1913 and began the practice of medicine.

Dr. Joseph Song, chief pathologist at Mercy Hospital in Des Moines, is the author of a new book in print entitled, "Pathology of Sickle Cell Disease." The new textbook is intended as a reference for medical students, general practitioners and specialists who are often confronted with sickle disease in their studies and practices.

Dr. Robert Givler, of Iowa City, has been promoted to associate professor in the Department of Pathology at The U. of I. College of Medicine. Dr. Givler received the M.D. degree at The U. of I. in 1956 and joined the staff a year later.

A portrait of **Dr. Walter A. Anneberg,** of Carroll, was recently unveiled in the main lobby of the new St. Anthony Regional Hospital in recognition of Dr. Anneberg's leadership in the building program. The portrait was a gift of the Carroll Rotary Club, of which Dr. Anneberg has been a member since 1924. At the unveiling ceremony, Dr. Anneberg was cited for his community service, his dedication to his profession, and his interest in international understanding.

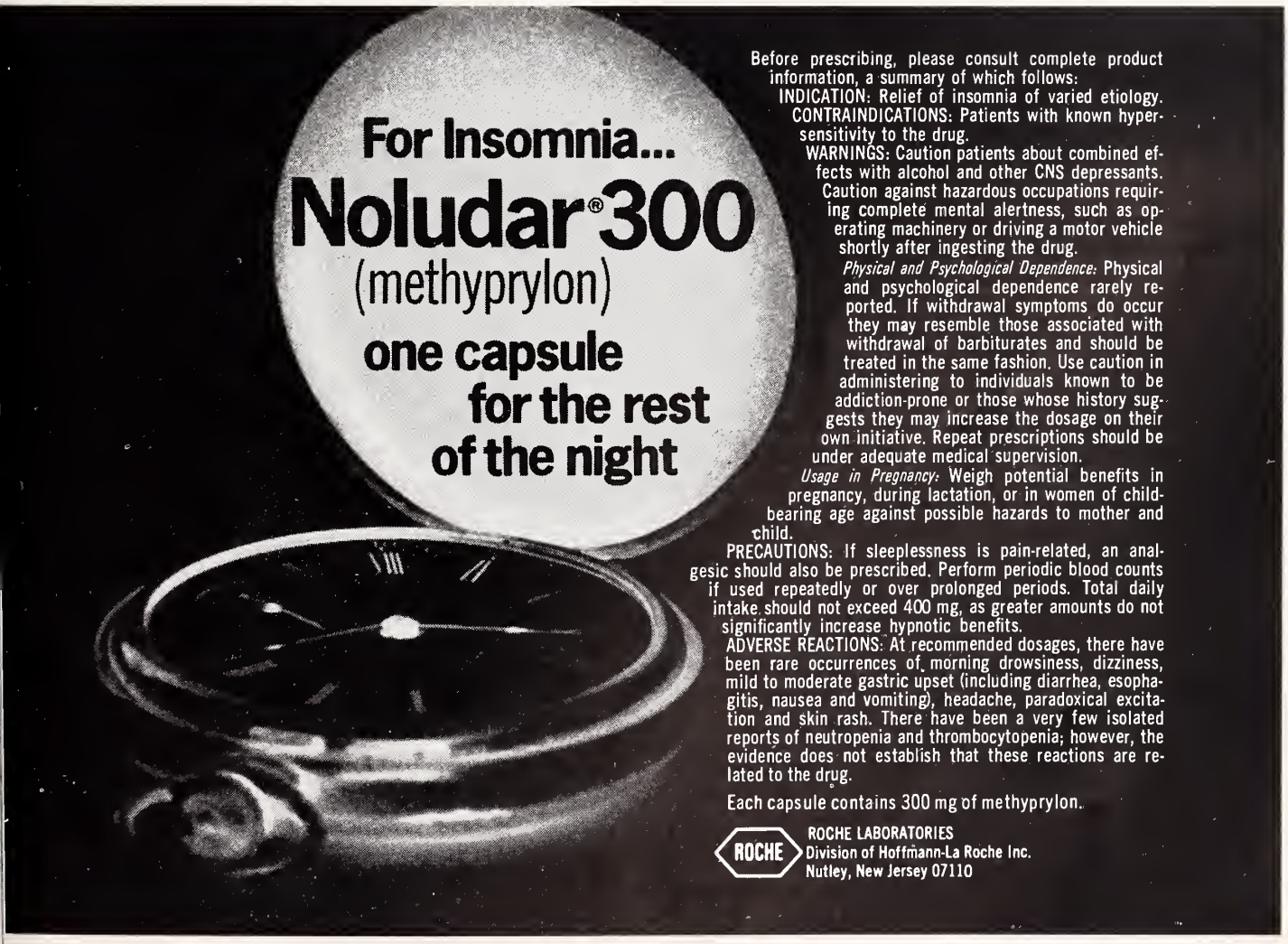
Dr. E. M. Downey, of Guttenberg, recently attended a four-day cardiac clinic at University Hospitals in Iowa City.

Drs. Richard Bondi and **Neil Williams,** Cedar Falls physicians, spoke on voluntary sterilization as a method of birth control at a recent meeting sponsored by the Zero Population Growth organization and held at the University of Northern Iowa.

Dr. Fred A. Rolfs retired from the practice of medicine in Aplington on June 30. Dr. Rolfs received the M.D. degree at The U. of I. College of Medicine in 1932 and served his internship at Charity Hospital in New Orleans, Louisiana. He joined his father, **Dr. John A. Rolfs,** in the practice of medicine in Aplington in 1933.

Dr. Thurman K. Leonard has closed his office in Madrid and has accepted a position with the Student Health Department of Northern University at Flagstaff, Arizona. A graduate of The U. of I. College of Medicine, Dr. Leonard had practiced medicine in Madrid since 1951.

Participants in a recent open house ceremony at the new Franklin General Hospital in Hampton were **Dr. Arnold M. Reeve,** Iowa Commissioner of Health; **Dr. Paul M. Seebohm,** associate dean of The U. of I. College of Medicine; and **Dr. Robert Rakel,** chairman of the Department of Family Practice at The U. of I. College of Medicine, Iowa City.



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Dr. A. J. Wentzien, of Tama, retired from the active practice of medicine in July. Dr. Wentzien has been associated with **Dr. A. J. Havlik** in the Tama Clinic since 1940. He was a solo practitioner in Tama prior to that.

Dr. Mark C. Steine, a general practitioner, has joined the Osage Medical Group in Osage. A native of Decorah, Dr. Steine received the M.D. degree at The U. of I. College of Medicine and interned at Valley Medical Hospital in Fresno, California.

Dr. Donovan F. Ward, of Dubuque, has been named chairman of the board of directors of the Dubuque Key City Bank and Trust Co. Dr. Ward is a past president of the American Medical Association.

Dr. B. A. DeLeon, chief of psychiatric services at the Clarinda Mental Health Institute, has been appointed new part-time medical director at the West Central Mental Health Center in Adel. **Dr. Jean Glissman,** a Des Moines psychiatrist who formerly held the position, has returned to full-time private practice.

Dr. Rafael A. Roure, of Glenwood, began the practice of medicine in July in the office formerly occupied by **Dr. Ward DeYoung.** Dr. Roure also recently purchased the practice of **Dr. M. L. Scheffel** in Malvern and plans to spend half-days in each office until an associate physician arrives later this fall. A staff of seven nurses will be rotated at each office providing full-time office hours in both communities.

Dr. Ashton McCrary, of Lake City, has been appointed to the Regional Medical Advisory Committee for the Omaha Regional Red Cross Program. Dr. McCrary represents the Northwest Iowa area comprising Audubon, Calhoun, Carroll, Crawford, Greene, Harrison, Ida and Shelby counties.

Dr. T. R. Flores, an orthopedic surgeon, has joined the Bluff Medical Center in Clinton. A native of the Philippines, Dr. Flores received the M.D. degree at the University of the Philippines Far Eastern College of Medicine, Manila, in 1963. He came to the United States in 1965 and served his internship and part of his surgical residency at Norton Memorial Infirmary in Louisville, Kentucky. From 1967 until recently, Dr. Flores has been a resident in the Department of Orthopedics at Louisiana State University, serving at Charity Hospital and Touro Infirmary in New Orleans. During his last year of residency, Dr. Flores was chief orthopedic resident at Earl K. Long Memorial Hospital in Baton Rouge.

Dr. P. J. Leehey, of Independence, has been reappointed to the Iowa State Board of Health by **Governor Robert D. Ray.** Dr. Leehey will be serving his second three-year term on the State Board.

The following Iowa physicians have been reelected to active membership in the American Academy of General Practice—**Dr. L. H. Jacques,** Iowa City; **Dr. Lyle F. Frink,** Spencer; **Dr. Norman D. Thede,** Britt; **Dr. John C. DeMeulenaere,** of Grinnell; **Dr. Emmett B. Mathiasen,** Council Bluffs; **Dr. D. F. Rodawig, Jr.,** Spirit Lake; and **Dr. Donald E. Taylor,** Stuart.

Dr. L. J. O'Brien, a Fort Dodge physician and IMS president, was guest speaker at the August meeting of the Wright County Medical Society. Dr. O'Brien commented on such topics as malpractice insurance, HMO's, and the future of health care. The IMS audio-visual report, "Your Dues' Dollars," was also presented.

Dr. Lawrence Den Besten, associate professor of surgery at The U. of I. College of Medicine, was the guest speaker at the inauguration of **Dr. James Chapman** as president of West Liberty State College in Virginia.

Dr. Enrique Cubillo, a Des Moines radiologist, was recently certified by the American Board of Radiology.

Dr. Harley G. Feldick, a Buffalo Center physician for over 20 years, has discontinued his practice at the Buffalo Hospital and Clinic to accept a position with the Student Health Service at University Hospitals in Iowa City.

Dr. J. X. Tamisiea, a former Omaha pathologist, has opened a pathology laboratory in Milford. A graduate of the University of Nebraska School of Medicine, Dr. Tamisiea has been a practicing consultant in clinical and anatomic pathology in Omaha since 1950. Hospitals in the Milford area are now being served by a pathologist from Sioux Falls, South Dakota, on a call or visit basis. By establishing the pathology laboratory in Milford, Dr. Tamisiea plans to provide daily service to area hospitals and physicians.

Dr. F. B. O'Leary, a Sibley physician for 24 years, retired from the private practice of medicine in Sibley September 24, and assumed a new position as senior medical officer at the Veterans Administration Center in Hot Springs, Arkansas, on October 1. A graduate of the Creighton School of Medicine, Dr. O'Leary came to Sibley in 1947. Prior to that time, he had practiced in George and in Melvin. **Dr. Scott R. Helmers** and **Dr. William E. Hicks,** both of Des Moines, have purchased the Osceola Clinic building and Dr. O'Leary's equipment. **Dr. James H. Thomas,** who for 23 years has been in partnership with Dr. O'Leary in the operation of the Osceola Clinic, is retaining the partnership equipment and will be associated with Dr. Helmers and Dr. Hicks. At present, both Dr. Hicks and Dr. Helmers are serving one-year family practice residencies at Broadlawns Hospital in Des Moines. Both physicians are graduates of The U. of I. College of Medicine and completed their internships at Broadlawns earlier this year.

Dr. A. D. Smith, of Primghar, recently accompanied 12 Boy Scouts to the 13th International Scout Jamboree in Japan. At the conclusion of the Jamboree, the group toured the major cities of Japan.

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Dr. Robert E. Condon, professor and head of surgery at The U. of I. College of Medicine, gave a talk recently on "Antibiotic Bowel Preparation" at the Veterans Administration Hospital in Des Moines.

Dr. James Blackman, of Eagle Grove, has been appointed deputy Wright County Medical Examiner. Other deputies are: **Dr. G. J. Hruska,** of Belmond, and **Dr. George Hogenson,** of Eagle Grove. These deputies serve with **Dr. Dale Harding,** of Eagle Grove, the Wright County Medical Examiner.

Dr. Aida Belarmino, who recently completed her residency in pediatrics, began the private practice of medicine in DeWitt September 1. A graduate of the University of the East R. M. Memorial Medical Center, Dr. Belarmino served a rotating internship at Highland Hospital, Rochester, New York, a two-year residency in pediatrics at City Hospital, St. Louis, Missouri, and another year of pediatric residency at Charity Hospital in New Orleans, Tulane University Division. The following year, at the New Orleans hospital, Dr. Belarmino served as chief resident of the Tulane Pediatric Infectious Disease Service.

Drs. James H. Coddington and **M. L. Northup,** Humboldt physicians, have announced plans to build an 8,000 square foot clinic adjacent to Humboldt County Memorial Hospital. The site was purchased recently from the Hospital Board of Trustees. Both physicians are graduates of The U. of I. College of Medicine. Dr. Coddington is a native of Humboldt and has been practicing in the community since 1942. Dr. Northup first came to Humboldt in 1953 on a preceptorship in the office of Dr. Coddington. Following his internship at St. Joseph's Hospital in Phoenix, Arizona, Dr. Northup returned in 1955 to Humboldt to become associated with Dr. Coddington.

Dr. Luther Morton, an osteopathic physician and surgeon, has joined **Dr. Harold Moessner** in the practice of medicine at Amana. Dr. Morton graduated from the Kansas City College of Osteopathic Medicine and Surgery and completed his internship at Green Cross General Hospital in Cuyahoga Falls, Ohio.

Deaths

Dr. Eugene H. McCaffrey, 81, a Des Moines physician and surgeon for over 40 years, died of a heart attack July 31 at Park Rapids, Minnesota, where he had been vacationing. A graduate of the University of Illinois School of Medicine, Dr. McCaffrey retired from active practice in 1960. He was a member of the Iowa Medical Society and American Medical Association.

Dr. Harry McCuistion, 74, long time Sioux City physician, died July 22 at a Sioux City hospital. Dr. McCuistion received the M.D. degree at Tulane University School of Medicine, interned at the Sanitarium of Paris, France, then practiced for two years at Fort Worth, Texas, before locating in Sioux City. He was a veteran of World Wars I and II, a board member of the American Board of Radiology, a member of the Iowa Medical Society and American Medical Association, and Alpha Omega Medical Honor Society. He was also an honorary member of the staff at St. Luke's Medical Center in Sioux City.

Dr. Henry R. Powers, 78, retired Emmetsburg physician, died July 18 at Palo Alto County Hospital. Dr. Powers received the M.D. degree at Rush Medical College in 1919 and interned at Cincinnati General Hospital. A veteran of World War II, he was a past president of the Palo Alto County Medical Society, Upper Des Moines Medical Society and Emmetsburg Hospital staff. Dr. Powers was a member of the Iowa Medical Society and the American Medical Association.

Pre-Sate® (chlorphentermine hydrochloride)

Caution: Federal law prohibits dispensing without prescription.

Indications
Pre-Sate (chlorphentermine hydrochloride) is indicated in exogenous obesity, as a short term (i.e. several weeks) adjunct in a regimen of weight reduction based upon caloric restriction.

Contraindications
Glaucoma, hyperthyroidism, pheochromocytoma, hypersensitivity to sympathomimetic amines, and agitated states. Pre-Sate (chlorphentermine hydrochloride) is also contraindicated in patients with a history of drug abuse or symptomatic cardiovascular disease of the following types: advanced arteriosclerosis, severe coronary artery disease, moderate to severe hypertension, or cardiac conduction abnormalities with danger of arrhythmias. The drug is also contraindicated during or within 14 days following administration of monamine oxidase inhibitors, since hypertensive crises may result.

Warnings
When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.
Drug Dependence Drugs of this type have a potential for abuse. Patients have been known to increase the intake of drugs of this type to many times the dosages recommended. In long-term controlled studies with the high dosages of Pre-Sate, abrupt cessation did not result in symptoms of withdrawal.
Usage In Pregnancy The safety of Pre-Sate (chlorphentermine hydrochloride) in human pregnancy has not yet been clearly established. The use of anorectic agents by women who are or who may become pregnant, and especially those in the first trimester of pregnancy, requires that the potential benefit be weighed against the possible hazard to mother and child. Use of the drug during lactation is not recommended. Mammalian reproductive and teratogenic studies with high multiples of the human dose have been negative.
Usage In Children Not recommended for use in children under 12 years of age.

Precautions
In patients with diabetes mellitus there may be alteration of insulin requirements due to dietary restrictions and weight loss. Pre-Sate (chlorphentermine hydrochloride) should be used with caution when obesity complicates the management of patients with mild to moderate cardiovascular disease or diabetes mellitus, and only when dietary restriction alone has been unsuccessful in achieving desired weight reduction. In prescribing this drug for obese patients in whom it is undesirable to introduce CNS stimulation or pressor effect, the physician should be alert to the individual who may be overly sensitive to this drug. Psychologic disturbances have been reported in patients who concomitantly receive an anorectic agent and a restrictive dietary regimen.

Adverse Reactions
Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

Dosage and Administration
The recommended adult daily dose of Pre-Sate (chlorphentermine hydrochloride) is one tablet (equivalent to 65 mg chlorphentermine base) taken after the first meal of the day. Use in children under 12 not recommended.

Overdosage
Manifestations: Restlessness, confusion, assaultiveness, hallucinations, panic states, and hyperpyrexia may be manifestations of acute intoxication with anorectic agents. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension, or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Fatal poisoning usually terminates in convulsions and coma.
Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

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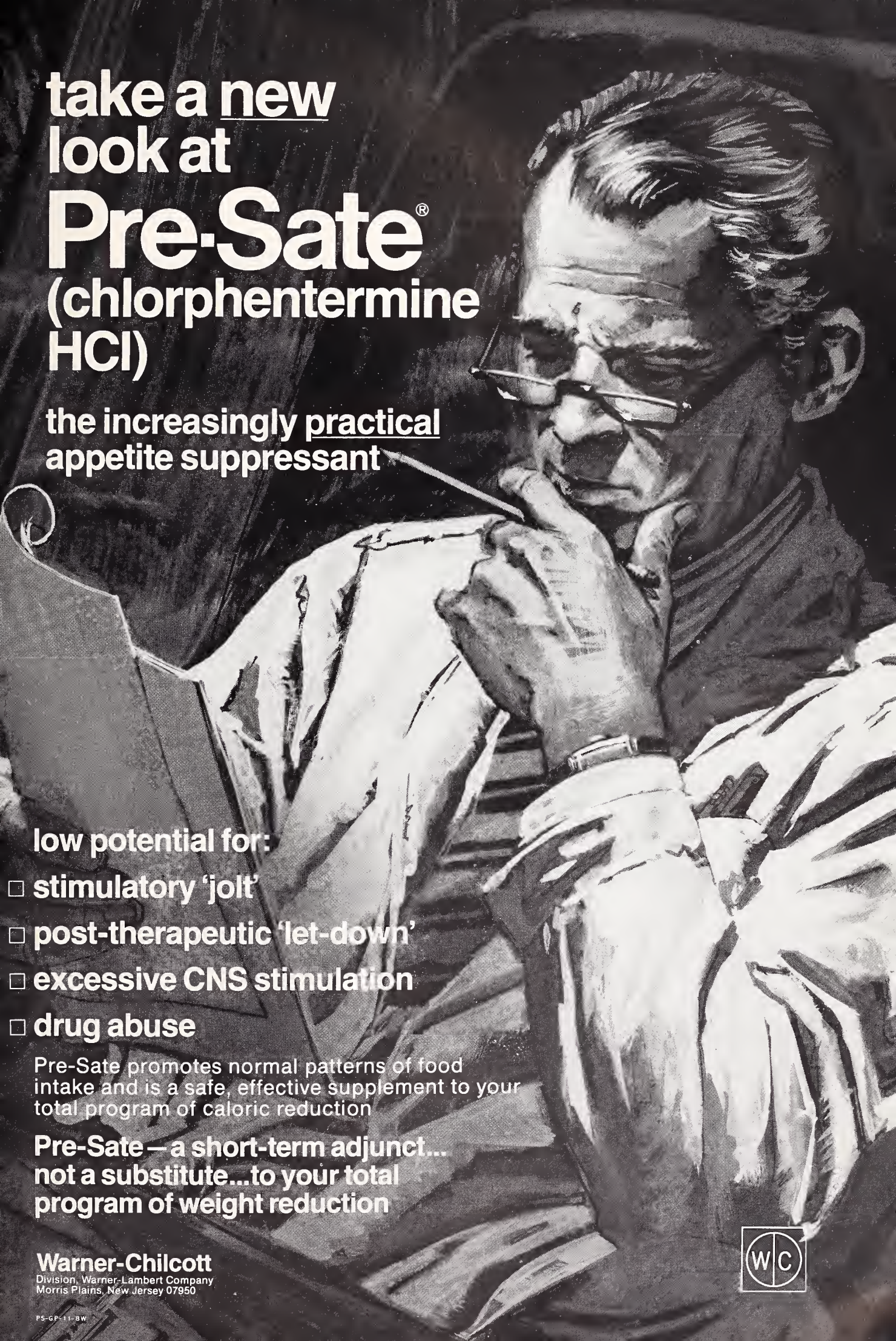
Each Pre-Sate (chlorphentermine hydrochloride) tablet contains the equivalent of 65 mg chlorphentermine base; bottles of 100 and 1000 tablets.

Full information is available on request.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POSITION WANTED—Iowa licensed M.D., presently in salaried position, desires part-time employment, evenings or Saturdays, in Des Moines area. Address your inquiry to No. 1460, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

WANTED: M.D. under 55 years of age who wishes a challenging practice with regular hours. One month paid vacation plus other fringes. Compatible small medical staff in a 40-bed Joint Commission Accredited university hospital. Attractive college town of 35,000 with outstanding cultural, sporting and recreational attractions. For more information write Robert E. Sinclair, M.D., Lafene Student Health Center, Kansas State University, Manhattan, Kansas 66502.

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Medical or dental office space available. Located near Des Moines hospital. For further information write No. 1461, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

PHYSICIANS NEEDED—Iowa community of 15,000 in need of additional doctors. A general practitioner, internist, pediatrician, ophthalmologist, ENT, Ob-Gyn, and general surgeon could fit into the community practice setting by making his home here. Contact Robert R. Kemp, M.D., 206 North 7th Street, Keokuk, Iowa 52632.

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Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., certain elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—they can both cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

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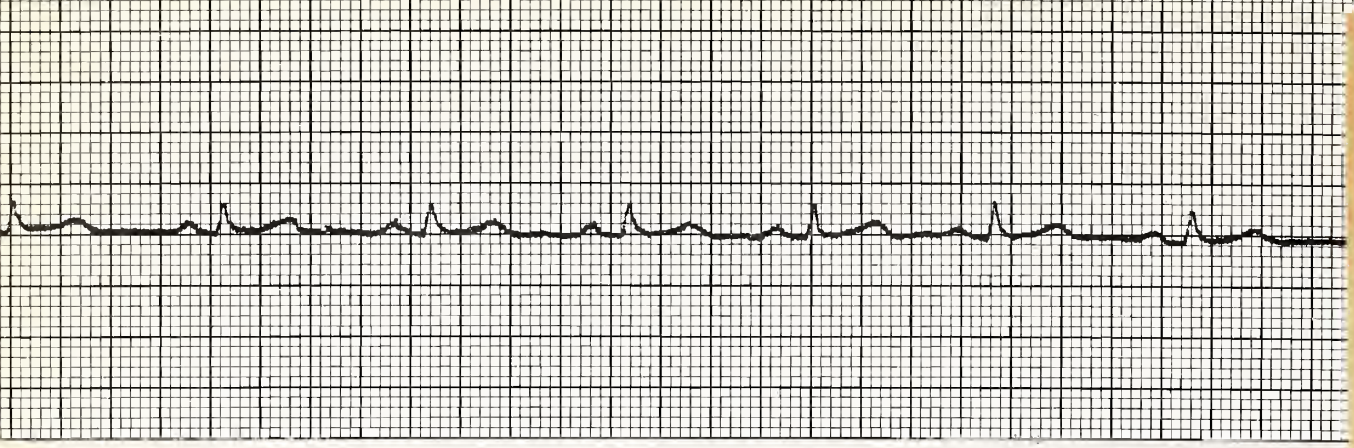

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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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November, 1971

Patients fell asleep quickl

Dalmane (flurazepam HCl) 30 mg reduced awake time—both before and after falling asleep - by fifty percent of pretreatment values in patients with insomnia.[1,2]

Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

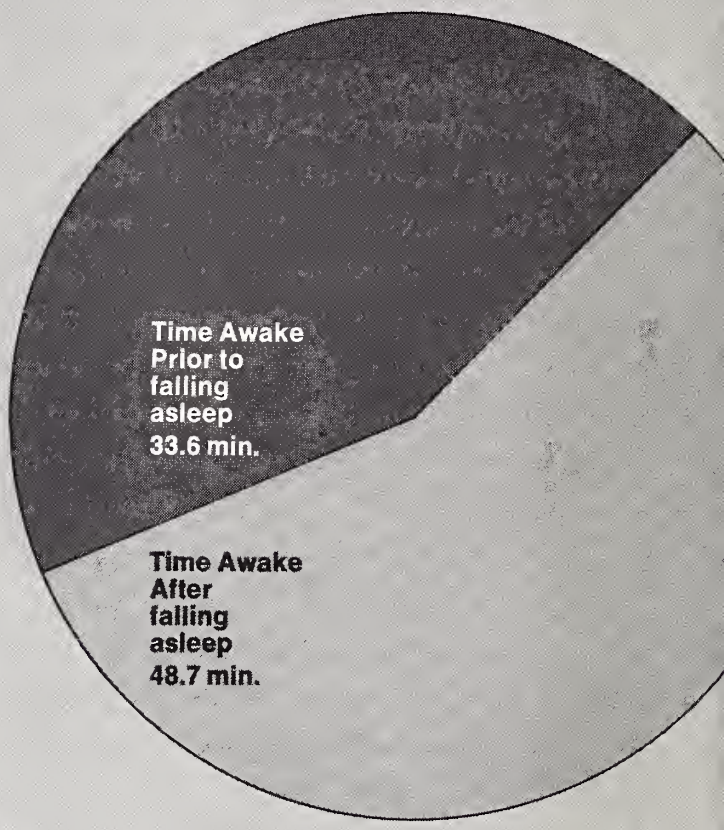
These studies utilized identical protocols and included eight insomniac patients. Sleep laboratory measurements in a limited number of patients are derived from all-night electro-encephalographic, electro-oculographic and electromyographic tracings. Unlike traditional methods of evaluation, they are quantitative, reproducible and projectable to large numbers of subjects.

Results shown represent average values in all subjects for the three consecutive nights of placebo administration prior to Dalmane therapy and the seven consecutive nights on Dalmane 30 mg.

Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

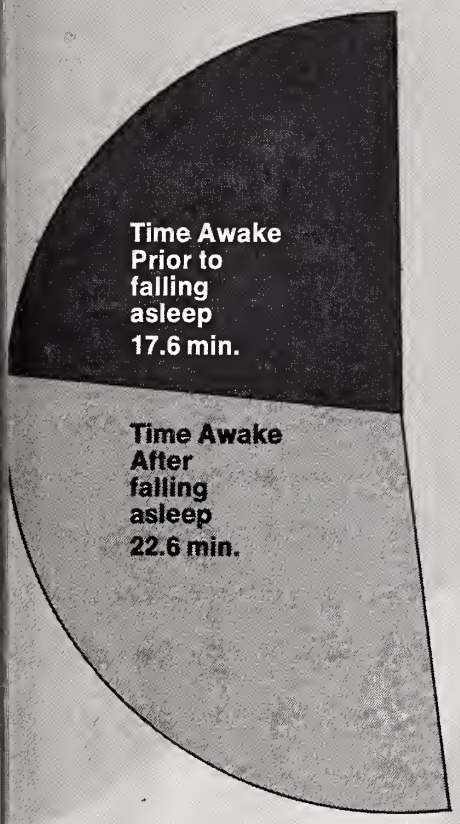
Before
Dalmane
(flurazepam HCl)



Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

On
Dalmane
(flurazepam HCl)



e sleep laboratory measurements in cited studies

eter	Before Dalmane	On Dalmane
equired to fall asleep	33.6 min.	17.6 min.
ime after onset of sleep	48.7 min.	22.6 min.
r of wakeful periods after t of sleep	12.2	8.4
leep time	420.0 min.	447.5 min.
leep percent	88.6	94.5

ical effectiveness as
ven in the sleep laboratory

Dalmane®
urazepam HCl)

30-mg capsule h.s.—usual adult dosage.
15-mg capsule h.s.—initial dosage for ly or debilitated patients.

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

Vol. LXI November, 1971 No. 11

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roton® chlorthalidone USP *Indications:* Hypertension and many types of edema involving retention of salt and water. *Contraindications:* ersensitivity and most cases of severe renal or hepatic diseases. *Warnings:* With the administration of enteric-coated potassium supplements, which ıld be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and ɔration) should be kept in mind. Surgery for these lesions has been required frequently and deaths have occurred. Discontinue enteric-coated potassium ɔlements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant women and ing mothers since the drug crosses the placental barrier and appears in cord blood and since thiazides appear in breast milk. The drug may result tal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of dbearing age, balance benefits of drug against possible hazards to fetus. *Precautions:* Antihypertensive therapy with this drug should always be ated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. uce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic rmination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte alance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and ssium supplements given, provided the patient does not have marked oliguria. Take special care in cirrhosis or severe ischemic heart disease and in ents receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. *Adverse Reactions:* Nausea, gastric irritation, vomiting, exia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, glycosuria, hyperuricemia, headache, muscle cramps, orthostatic ɔtension, which may be potentiated when chlorthalidone is combined with barbiturates, narcotics or alcohol, aplastic anemia, leukopenia, mbocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and reatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of pounds include: jaundice, xanthopsia, paresthesia, and photosensitization. *Average Dosage:* 50 or 100 mg. with breakfast daily or 100 mg. every other *How Supplied:* White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000. (B)46-230-G *For full details, please he complete prescribing information.*

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President's Page

The relationship between the medical profession and other health professionals deserves our serious and continuous attention. The Society works through the Iowa Health Council and in other ways to foster harmony and cooperation with organizations representing Iowa dentists, pharmacists, osteopathic physicians and surgeons and others. These various professional entities have much to contribute to the total health care scene and the total impact is considerable.

In our separate and in our unified projects and utterances, Iowa health care professionals must always keep the matter of quality uppermost in mind. No action should be instituted which will jeopardize this element of quality. As important health issues are probed and debated, as health planning takes place, in the private and in the public sectors, quality of care must reside as the cornerstone.

Now before the public and the professions is the Health Maintenance Organization. With many possible dimensions and directions, the HMO concept is bound to challenge our intellect, it will require our concerted study. State level legislation to allow HMO's appears certain to be considered in 1972. The virtues and the limitations of this approach must be placed on the scales to see which way they tip. We must provide informed leadership to our professional colleagues as they seek to determine the value of HMO's and other such innovative mechanisms.

L. J. O'Brien M.D.

President

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MUDRANE GG
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IOWA MEDICAL MISCELLANY

MEDICARE CLAIMS . . . October news coverage has included extensive reporting on the participation of Electronic Data Systems Corporation (EDS) in the processing of Medicare claims in Iowa and eight other states. EDS subcontracts with Blue Shield to provide computer support in the handling of Iowa's Medicare claims. At issue is whether EDS is profiting excessively from the services it is providing; elected officials in Washington, D. C., have raised the question. Interestingly, of the top six Blue Shield Plans in terms of efficiency in Medicare claims processing, five are reportedly served by EDS; Iowa is among these, having made significant forward strides since associating with EDS in 1970. Prime contractors (Blue Shield) are prohibited by law from making profits; subcontractors, such as EDS, are not so restricted.

• • •

WHITE HOUSE PARLEY . . . E. E. Linder, M.D., Ogden, will be one of Iowa's delegates to the 1971 White House Conference on Aging. The Washington, D. C., Conference is the week of November 28. It will "help develop a more adequate national policy for older Americans . . . it will fully consider the many factors which have a special influence on the lives of the aging . . . it will address precise recommendations, not only to the Federal government, but also to government at other levels and to private and voluntary sectors as well." Dr. Linder is chairman of the IMS Committee on Aging and Chronic Illness.

• • •

VALLEY CLINIC CITED . . . Full membership in the American Association of Medical Clinics has been accorded to the Valley Clinic in Fort Madison. Harold L. Schrier, M.D., has been designated the group's AAMC delegate. The Valley Clinic was founded in 1964 by seven physicians; it now has 13.

• • •

JCAH WORKSHOP . . . Sponsorship of a two-day (November 11 and 12) Workshop on the JCAH (Joint Commission on Accreditation of Hospitals) is being shared by the IMS and the Iowa Hospital Association. Conference will be at Johnny and Kay's Hyatt House in Des Moines and is for persons (physicians, hospital trustees, administrators, etc.) interested in or affected by the new JCAH standards.

• • •

DUAL VACCINE HERE . . . Newly-licensed measles-rubella live vaccine is available from the State Department of Health at no charge via the biologic supply program. Only stipulation is that *no charge* be made for the vaccine itself when administered. No significant difference has been found to exist in the seroconversion rates of the combination vaccine and the two separate vaccines. Reactions appear neither to be no more severe nor more frequent in the combined form. State health officials believe the new product will provide more convenient means of protecting against these two childhood diseases. Further information on the new vaccine may be obtained by writing or calling Preventive Medical Service, SDH, Des Moines (Telephone 515-281-3478).

• • •

BLUE SHIELD STATS . . . In his annual meeting report, Blue Shield President S. P. Leinbach, M.D., Belmond, noted that 37 per cent of Iowa's population is covered by Blue Shield. Enrollment passed the one-million mark in 1970, while Blue Shield income increased to $37 million. The Plan paid out over $31 million in member benefits in 1970. Claims for the year totalled 943,449, in addition to 711,758 Medicare Part B claims; $20 million was paid for Medicare covered services. The Physician Service Center of Blue Shield received 25,000 inquiries during the first half of 1971, approximately 80 per cent of them coming over WATS.

• • •

SPENCER SELECTED . . . The Northwest Iowa Alcoholic Treatment Unit (located in Spencer) is among 11 such treatment centers in the nation under study by the Stanford Research Institute in a project of the National Institute on Alcohol Abuse and Alcoholism. Ultimate goal of the study is more effective medical and rehabilitative care for alcoholics.

• • •

GROUP COVERAGES . . . The IMS Executive Council October 20 approved two group coverages for offering to interested Society members by the Prouty Company of Des Moines. Approval was given to a Group Office Overhead Expense Disability Income coverage and to a Group In-Hospital Income program. The Council was provided preliminary information regarding a group-sponsored Personal and Professional Umbrella Liability coverage. This latter proposal was referred to the Medico-Legal Committee for study and recommendation.

SCANLON FOUNDATION . . . The 16 Iowans now receiving medical student loans from the Scanlon Medical Foundation/Iowa Medical Society met November 4 in Iowa City with members of the Foundation Board of Directors. The meeting has become a custom and affords an opportunity for the Foundation Board of Directors to become acquainted with the aspiring physicians.

• • •

CANCER SUPPORT . . . In the past 12 months Iowans have contributed $1.1 million to the American Cancer Society's cancer control programs of research, education and service. Of this, $1,020,285 was realized during the 1971 Crusade period. This is the 25th anniversary year of the founding of the Society's Iowa Division.

• • •

SOURCE OF CONCERN . . . Faculty resignations at The U. of I. College of Medicine were noted at 16 in the first two-and-a-half months of the '71-'72 academic year. In the preceding year there were 28 resignations in total. There are 330 faculty members. College officials have expressed concern over this year's resignation rate.

• • •

'72 IMS ANNUAL MEETING . . . One of the nation's best known authorities on death and the counseling of terminal patients will speak at the Society's 1972 Annual Meeting. Elisabeth Kubler Ross, M.D., Chicago, Illinois, will discuss the *Crisis of Dying,* Monday, April 24, in Des Moines. The 1972 Annual Meeting will be at the Hotel Fort Des Moines, April 23-26.

• • •

SCHOOL BOARD SERVICE . . . How many Iowa physicians serve their communities as members of local school boards? Dorothy C. Forsythe, M.D., Newton; Lawrence Gray, M.D., Ankeny; and George Caudill, M.D., Des Moines, are three who do. There are probably many more!

• • •

STATE LOAN PROGRAM . . . 120 medical and osteopathic students are sharing $149,860 in state loan funds this academic year. Sixty-four of the loan recipients are at The U. of I. College of Medicine, 56 are enrolled in the Des Moines College of Osteopathic Medicine and Surgery. The state program has helped 97 students finance their educations over the past several years; 40 of these individuals are now interning, 14 have entered general practice, and 16 are in military service. Benefactors of the program are now practicing in Indianola, Glidden, Norwalk, West Des Moines, Ida Grove, Van Meter, Nevada, Atlantic, LeMars, Chariton, Story City, Ankeny and Iowa City.

(Continued on Page 651)

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Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

Self-Assessment Examinations

Among the new methods now available for the continuing education of physicians is the *self-assessment examination* (or *program,* for those made uncomfortable by the word *examination*). Of course, such assessments are entirely voluntary, and the agencies administering the tests take great pains to assure confidentiality—even the administering office has no knowledge of the result.

Why bother? Hopefully, the process of writing the test plus getting the subsequent feedback about one's performance gives encouraging reassurance (when the answer was correct) and stimulus to learn (when incorrect). The tests or the answer sheets also provide appropriate references to recent literature designed to stimulate some in-depth reading.

The test-makers face the challenge of producing an examination sufficiently close to the *real problems* of the test-takers, that the test-takers will not feel engaged in a game of medical trivia, and that new information presented in the test format will indeed be translated into better medical care for patients. And test-makers are getting better at it. Questions tend to be more clinically oriented than many medical school exam questions, and come closer-to-life, especially by using realistic clinical situations and patient management problems.

Such self-assessment programs were pioneered by the American College of Physicians, and similar evaluation and study aids have since been produced by the American Psychiatric Association, American Academy of Orthopaedic Surgery, the American Academy of Pediatrics, the American Academy of Ophthalmology and Otolaryngology, the American Society of Anesthesiologists, and most recently the Surgical Evaluation and Self-Assessment Program of the American College of Surgeons. The Connecticut and Ohio Academies of Family Practice have joined forces to produce the "Core Content Review" for family practitioners. Still others are being developed. The examinations are available both to members and non-members of the respective organizations for a modest fee.

I have been asked "How can a busy practicing physician *be motivated* to give some effort to his continuing education?" The only answer I can offer is, "By making him realize he has a need to know." The self-assessment examination, by showing a physician his weak spots in a relatively non-threatening way, may certainly help *stimulate his sense of needing or wanting to know,* which may be the only possible motivational incident in a non-compulsory system like ours. We cannot force the proverbial horse to drink the water we provide, but there is nothing to prevent us from feeding him a lot of salt before taking him to the water. Helping a conscientious professional discover topics deserving his study, which these self-assessment exams may accomplish, is one way of feeding the metaphorical salt.

Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Nov. 4-6	In-House Conference for Practitioners
Nov. 4-6	International Symposium on Ocular Inflammatory Disease
Nov. 10	Diet Therapy U.S.A.
Nov. 10	Clinical Day in Cerebrovascular Disease
Nov. 16-18	Miscellaneous Gram Negative Rods (State Hygienic Laboratory)
Nov. 17-20	Symposium on Maxillofacial Injuries
Nov. 18	Bedside Conference for the Family Practitioner, St. Joseph Mercy Hospital, Sioux City
Nov. 19-20	Conference on Occupational Health and Safety
Nov. 20-21	Eye Enucleation Course (for Morticians)
Dec. 1	Ophthalmology Clinical Conference
Dec. 2	Clinical Day in Cerebrovascular Disease
Dec. 3	Cardiac and Respiratory Disease Conference
Dec. 6-9	Intensive Coronary Care Management
Dec. 8-9	Obstetrics and Gynecology Postgraduate Course
Dec. 8-9	Basic Mycobacteriology (State Hygienic Laboratory)
Dec. 10-11	Postgraduate Conference in Surgery
Dec. 16	Refresher Course on Cerebrovascular Disease

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

Dimetapp Extentabs®

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.
CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.
WARNINGS: *Use in children:* In infants and children particularly, antihistamines in overdosage may produce convulsions and death.
PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants such as alcohol, hypnotics, sedatives, tranquilizers, etc.
ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.
HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

MEDICAL MISCELLANY

(Continued from Page 649)

HMO PRINCIPLES . . . The Executive Council also approved on October 20 a set of basic principles to be included in any state legislation authorizing health maintenance organizations. These principles will be used in further discussions with other health providers and with members of the Iowa General Assembly.

• • •

NEW OFFICERS . . . Sidney Ziffren, M.D., Iowa City, and John Hess, M.D., Des Moines, have been selected Chairman and Secretary, respecttively, of the IMS Grievance Committee. Selected by their colleagues on the Committee, Drs. Ziffren and Hess succeed F. O. W. Voigt, M.D., Oskaloosa, and D. O. Maland, M.D., Cresco, in these offices. Drs. Voigt and Maland have served effectively in these positions for a number of years.

• • •

DELEGATES SERVE . . . Iowa's delegates to the AMA, Herman Smith, M.D., and Elmer Smith, M.D., both of Des Moines, are serving late this month as members of different reference committees at the AMA Interim Meeting.

• • •

RESEARCH APPS . . . December 31 is filing deadline for 1972-73 grants-in-aid and fellowships from the Iowa Heart Association. The IHA Research Program offers support for investigative work in both clinical and basic science areas in the cardiovascular field.

• • •

MISCELLANEOUS MISCELLANY . . . A portrait of the late Nathaniel G. Alcock, M.D., professor and head of urology at The U. of I. College of Medicine from 1915 to 1949, has been presented to the University by the Iowa Urological Society. The presentation was made September 10 by Rubin H. Flocks, M.D., at a meeting of the Society in Iowa City. . . . An excellent article entitled "Health Care in America: A Heretical Diagnosis" and written by Harry Schwartz appeared in the August 14 issue of the SATURDAY REVIEW OF LITERATURE. . . . HEW is accelerating HMO activity and has funded 15 pilot programs and 66 planning grants; federal allocations for these total $7.6 million. . . . Regarded by some as a negative force, record actually shows the AMA provided statements in support of health care proposals in 31 of 35 appearances in the 91st Congress. This tally was compiled in response to Senator Edward Kennedy's charges that the AMA thwarts new health care ideas. . . . Iowa was ranked 35th as a desired location by physicians registering with the AMA Physicians' Placement Service.

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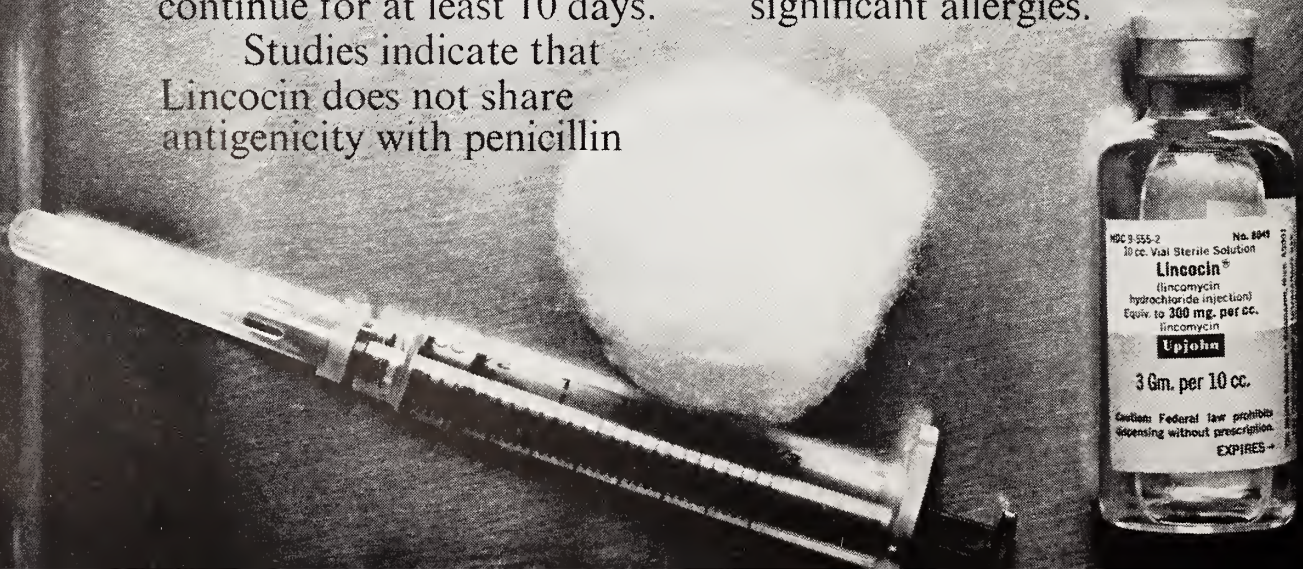
Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn)

For further prescribing information, please see following page.

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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

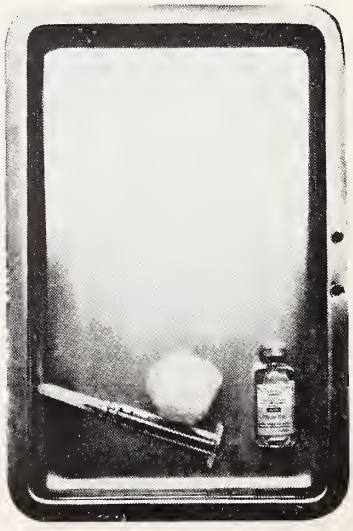
An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

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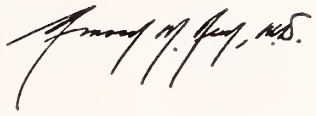

ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Public Health Service Recommendation on Smallpox Vaccination

The Public Health Service has considered and accepts the recommendation on smallpox vaccination formulated by its Advisory Committee on Immunization Practices. The Service recognizes this recommendation may differ from policies included in statutes and regulations now in force in many states and localities. It therefore encourages state public health, medical, and other groups with responsibilities for preventive medical care to explore promptly mechanisms to facilitate broad understanding and smooth implementation of the recommendation. The full text of the Advisory Committee's recommendation follows with an appended discussion of the rationale.

"The Committee has reviewed the success achieved so far by the World Health Organization (WHO)-sponsored smallpox eradication effort and fully expects that it will continue. It now believes that the risk of smallpox in the United States is so small that the practice of routine smallpox vaccination is no longer indicated in this country.

"The Committee believes that public health efforts should be devoted to assuring adequate immunization of all personnel in health services and of all travelers to and from continents where smallpox has not been eradicated.

"Because of the rapidly declining incidence of smallpox in the world and the vastly reduced risk of its being imported into the United States, health officials in the United States should consider the discontinuation of compulsory measures as they relate to routine smallpox vaccination.

"The Public Health Service should regularly evaluate and distribute information on the progress toward worldwide smallpox eradication. This will provide a basis for future assessment of smallpox vaccination practices in the United States.

"Finally, physicians and public health agencies should intensify efforts to assure that all adverse vaccine reactions are reported and that the following contraindications to smallpox vaccination are scrupulously observed: (1) eczema and other forms of chronic dermatitis in the person to be vaccinated or in a household contact; (2) pregnancy; (3) altered immune states from disease or therapy."

Vaccination Against Smallpox in the United States—A Re-evaluation of the Risks and Benefits

The policy of non-selective vaccination for protection against smallpox began when smallpox was widespread and uncontrolled. Under those conditions, it was a rational, necessary procedure, and measures were taken to assure vaccination of the public.

Today, non-selective vaccination against smallpox unnecessarily exposes a large segment of the public to the risk of complications resulting from vaccination—a risk greater than the probability of their contracting the disease.

The probability of contracting smallpox in the United States today is extremely low and continues to decrease. There has not been a documented case since 1949, and importation is the only way in which smallpox could occur in this country. And importation is unlikely because worldwide eradication efforts have decreased significantly the number of cases of smallpox and the number of smallpox-endemic areas. There is a national surveillance system to identify suspect cases. Upon confirmation of a suspect case, there are efficient emergency procedures for managing

For additional information on smallpox vaccination, see Editorial on page 683 written by M. E. Alberts, M.D., Scientific Editor of the JOURNAL.

the case and preventing spread of the disease. The probability of contracting smallpox in the United States is so small the risk of complications from vaccination outweighs the benefits derived from it. For this reason, non-selective vaccination of the public is no longer justifiable. Vaccination should routinely be required only of people at special risk; travelers to and from countries where smallpox is still endemic and health services personnel who come into contact with patients.

The Public Health Service has instituted a policy of selective vaccination against smallpox in the United States after careful examination of many factors, including the risk of complications following vaccination, the probability of importation, and the anticipated extent of spread after importation.

COMPLICATION RISK

Smallpox vaccination has a definite, measurable risk of untoward reaction and death. In 1963 and again in 1968, national studies were conducted to quantify the incidence of complications associated with smallpox vaccination in the United States. It is estimated that 14,168,000 people were vaccinated in 1968. Nine deaths were associated with smallpox vaccination that year; one of these deaths was in a contact. Complication rates were much higher in primary vaccinees than in re-vaccinees and, among primary vaccinees, children under the age of 12 months had the highest rates of serious complications.

Death data collected from the 1963 and 1968 surveys show that the risk of death from all complications was 1.0 per million for primary vaccines of all ages and 0.1 for re-vaccinees of all ages. Among primary vaccinees, the risk of death from all complications was 5.0 per million primary vaccinations for children under the age of 12 months and one-tenth this figure or 0.5 per million primary vaccinations for persons from 1 through 19 years of age.

The combined rate of post-vaccinal encephalitis and vaccinia necrosum was 3.8 per million for primary vaccinees of all ages, as compared to 0.7 for re-vaccinees of all ages. Among primary vaccinees, the combined rate of post-vaccinial encephalitis and vaccinia necrosum was 6.5 per million for infants and 3.0 per million for persons aged 1 through 19.

PROBABILITY OF SMALLPOX IMPORTATION

The geographic area in which smallpox is en demic is shrinking. In the mid-1940's, approximately 80 countries reported smallpox, and a majority of the world population lived in smallpox-endemic areas. In 1966, the number of countries reporting smallpox had been reduced to 43, 28 of which were endemic. In 1970, 23 countries reported smallpox, and 14 of these were considered to be endemic. In the four years from 1966 to 1970, there has been a 50 per cent reduction in the number of countries reporting smallpox and in the number of endemic countries.

In June 1971, only nine countries reported smallpox (Sudan, Ethopia, Democratic Republic of the Congo, Uganda, Afghanistan, Pakistan, India, Nepal, Indonesia). This sharp decrease in number of countries reporting smallpox has greatly reduced the probability of travelers being exposed to smallpox before they enter the United States.

With the decline in number of endemic countries, there has also been a marked reduction in the total number of world smallpox cases. The number reported remained fairly static at about 100,000 cases per year from 1960 until 1967. In 1967, the global smallpox eradication effort was started and despite a marked improvement in surveillance efficiency, the number of reported cases of smallpox has continually declined. From 1967-1970, there was a 77 per cent decline in the number of reported cases.

These declines in the number of endemic areas and in the number of cases have reduced the probability of importation. The probability of importation into the United States is dependent on three factors: the number of travelers from endemic countries to the United States, the immunity status of travelers, and the incidence of smallpox in endemic countries.

In 1970, approximately 8,300,000 air travelers entered the United States (including returning United States citizens). A survey of travelers indicated that 9.5 per cent (788,500) had traveled in a smallpox-endemic country sometime in the previous two weeks. Recent surveys of immunity status have shown that not more than 10 per cent (78,850) of these travelers are considered to be susceptible. The probability of smallpox importation into the United States can be estimated by multiplying the number of susceptible travelers from endemic countries times the average two-week smallpox incidence in Asia, East and South Africa, and South America in 1970, 0.105 per 100,000 population. The product .0828 is the probability of a smallpox importation into the United States in 1970. With this rate, the United States could expect one importation every 12 years.

The risk that citizens of smallpox-endemic countries have of being infected with smallpox in the two weeks prior to arrival in the United States in 1970 is approximately 20 per cent of the risk in 1960.

The probability of exportation is related to incidence in endemic countries. As the rates of smallpox incidence decline in endemic countries, the probability of exportation should approach zero before smallpox actually disappears from the country.

ANTICIPATED EXTENT OF IMPORTATION SPREAD

Analysis of the European experience of 51 importations in the past 20 years indicates smallpox

would not spread rapidly if imported. The average importation from 1951 to 1960 resulted in 25.8 cases of smallpox. From 1961 to 1965, the average importation resulted in 16.1 cases, 2.4 deaths, and was controlled in 2.6 generations. In the last 5 years, the average outbreak has resulted in 10.1 cases, 0.5 deaths, and has been controlled in 1.9 generations. It is unlikely that the number of cases per importation would have been this high if health personnel had been adequately protected, since almost 50 per cent of European cases were acquired in hospitals. *Based on European experience, it would require 15 importations per year to produce the same mortality currently associated with smallpox vaccination in the United States.*

Clearly, there has been a decline in the probability of spread as a result of more aggressive control procedures. Smallpox is not the highly contagious disease it was once thought to be. If smallpox were introduced into the United States, it is unlikely it would spread fast enough to evade the containment measures of case detection and selective vaccination. *Vigilant surveillance and outbreak control are the keys to maintain freedom from smallpox.*

An efficient surveillance and control system operates in the United States to identify suspected cases of smallpox and their contacts and to interrupt transmission of the disease. Quarantine Inspectors are stationed at all international ports to observe travelers for signs of illness and check vaccination certificates of travelers from smallpox-infected countries. Travelers without valid vaccination certificates are placed under surveillance orders. A suspected case would immediately be placed in isolation until a definite diagnosis was made. If the case were confirmed, the resources of State and Federal health agencies would quickly be mobilized to trace, vaccinate, and keep under observation all of the patient's contacts.

REPORTING IN IOWA

Iowa physicians with suspected cases of smallpox are requested to report this fact promptly by telephone to the Iowa State Department of Health (515-281-5605). Laboratory support to aid in diagnosis will be provided.

Since experience in Europe indicates health service personnel are most likely to be infected by an imported case, maintenance of a high level of immunity among this group is important. In hospitals, personnel in the infectious disease department and laboratory would be at highest risk. For health service personnel re-vaccination at three to five year intervals is recommended. Iowa has no state law requiring smallpox vaccination.

In health service personnel smallpox vaccination, the usual contraindications should apply, namely: (1) eczema and other forms of chronic dermatitis in the person to be vaccinated or in a household contact; (2) pregnancy; (3) altered immune states from disease or therapy.

Morbidity Report September 1971

Diseases	Sept. 1971	1971 to Date	1970 to Date	Most September Cases Reported From These Counties
Brucellosis	8	21	41	Dubuque
Chickenpox	86	5471	4175	Dubuque
Conjunctivitis	21	371	249	Benton, Butler, Grundy
Encephalitis				
California virus	3	3	1	Allamakee
Coxsackie A5	1	1	0	Scott
Echo 4	2	2	2	Iowa, Marshall
Gastrointestinal viral infection	589	5808	173	Johnson, Linn
German measles	18	680	2013	Scattered
Gonorrhea	769	4339	4053	Scattered
Hepatitis				
infectious	32	243	279	Polk, Scott
serum	1	12	0	Linn
Histoplasmosis	1	15	14	Tama
Impetigo	89	326	372	Scattered
Infectious mono	75	824	395	Johnson
Malaria, imported				
P. vivax	1	24	16	Polk
Measles	36	2274	1108	Des Moines
Meningitis				
Echo 6	1	1	0	Boone
Hemophilus	1	1	1	Woodbury
Meningococcal	1	11	11	Greene
Viral	1	4	5	Franklin
type unspecified	2	10	12	Pottawattamie
Mumps	224	3172	2361	Delaware, Linn
Pneumonia	56	651	672	Pottawatamie, Scott
Rabies in animals	21	194	79	Scattered
Rheumatic fever	1	45	42	Scott
Ringworm, body	28	107	153	Page, Pottawattamie, Story
Rocky Mountain Spotted Fever	2	2	2	Johnson, Polk
Roseola	13	22	0	Pocahontas
Salmonellosis				
S. enteritidis	2	10	5	Polk, Webster
S. heidelberg	7	8	2	Woodbury
S. infantis	1	1	4	Woodbury
S. manhattan	1	4	3	Black Hawk
S. muenchen	1	4	1	Polk
S. newport	2	10	4	Scott, Webster
S. paratyphi B	1	4	2	Marshall
S. reading	1	1	0	Scott
S. schwarzengrund	1	1	1	Black Hawk
S. thompson	6	27	3	Pottawattamie
S. typhimurium	8	37	20	Johnson, Marshall
S. typhimurium var. copenhagen	1	4	4	Woodbury
Group C	1	3	1	Pottawattamie
Shigellosis				
S. sonnei	35	139	60	Dubuque, Scott
Streptococcal infections	410	5146	5046	Johnson
Syphilis	74	473	403	Polk
Tuberculosis, active	11	102	93	Polk
Whooping cough	15	41	17	Lee

University Hospitals DRUG LETTER

The Role of Methylphenidate and Dextroamphetamine in Hyperactivity in Children

GERALD SOLOMONS, M.D.
Iowa City

The use of amphetamines* to alleviate behavioral disorders in children was orginally advocated in 1937.[1] In 1958[2] methylphenidate† was first used on children with behavior disorders and eventually became even more popular than the amphetamines. The era of the tranquilizer and other psychoactive drugs erupted in the 1950's and the psychopharmacologic literature literally exploded with proposals for all sorts of agents for all sorts of conditions. In the United States, particularly, parents with children having difficulty in school banded together to demand better programs, better understanding, and more response from educational and government agencies. This further produced a flurry of scientific investigation into learning disabilities and deviant behavior in children, which in turn created a greater demand for effective drugs. The population explosion with its overcrowding of school classes aggravated the whole situation. Thus, a milieu was created in which a great dependency on and need for effective drug therapy produced many studies without control and little scientific validation.

Much of the problem in methodology is due to the difficulty of an operational definition of minimal brain dysfunction, learning problems or deviant or hyperactive behavior. Lack of such a definition automatically produces confusion in the choice of medication and the evaluation of its efficacy. Most often improvement is based on a purely subjective impression of parent or teacher, employing rating scales which evaluate behavior related to conduct and personality. Unfortunately, increased activity level has never been quantified despite many attempts, and the usual classification has been based largely on etiology.[3] In the Child Development Clinic of The University of Iowa, we have found this classification unsatisfactory because of difficulty in pinpointing the etiology, and a much more practical and informative classification has been a description of the deviant activity itself. Our classification is as follows: 1) Hypokinesis, 2) fidgetiness, 3) overactivity, 4) hyperkinetic impulse disorder.

Although we have not definitely proved this point, we have the impression that by classifying increased activity in this way, we can better select the medication of choice.

MODE OF ACTION

The site and mechanism of action of the psychostimulant drugs in hyperkinesis are quite speculative; several investigators have commented on this question. An excellent review article is by Kornetsky.[4]

Laufer, *et al.*[5] reported that a significant number of hyperkinetic children have low photo-Metrazol thresholds and that amphetamine raises the threshold to normal in these children. A low photo-Metrazol threshold is thought to be indicative of dysfunction at the diencephalic level and, as it is reported that amphetamine inhibits synaptic transmission, it has been suggested that the site of action of amphetamine may be related to the brainstem reticular-activating system. By raising the level of synaptic resistance at the diencephalic level, the normal function of the diencephalon is restored and prevents a flooding of the cortex by a stream of impulses.

The mechanism of action of amphetamine in decreasing hyperkinetic behavior is not understood. Logically the hyperkinetic behavior should increase with amphetamine and be reduced by barbiturates. However, barbiturates are contraindicated because of the frequency of paradoxical excitement. Both the racemic and the dextroisomer of amphetamine have been used for hyperactivity, but *d-amphetamine* produces effects equal to those of the *dl* form at half the dose.

Conners and Rothschild[6] state that the drug action in the hyperkinetic child is not a pharmacologically true parodoxical effect, but merely a direct stimulating effect of the amphetamines which causes an increase in general alertness and excitation with a concomitant increase in focused attention. Responses to interfering stimuli would then be decreased and this could result in the child being more amenable to positive reinforcement by parents and teachers.

Knobel[7] perceives the problem as one of cortical maturation, or rather lack of it.

Millichap and Fowler,[8] in a recent review, analyzed the drugs used for hyperactivity according to effectiveness and toxicity. According to them, methylphenidate is the drug of choice and amphetamine sulfate the second most successful drug.

(Please Turn to Page 660)

Dr. Solomons is a professor in the Department of Pediatrics at The U. of I. College of Medicine. This editorial appeared initially in the March-April, 1971 issue of DRUG LETTER, a monthly intramural publication of University Hospitals prepared jointly by the Pharmacy Department and the Clinical Pharmacology Committee.

* Amphetamine sulfate (Benzedrine®); dextroamphetamine sulfate (Dexedrine®).

† Methylphenidate (Ritalin®).

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(from the Greek **kinetikos,**
to move,
and the Latin **sedatus,**
to calm)

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ing peeper (tree frog, *Hyla crucifer*):
s small amphibian can expand
throat membrane with air until it is
ce the size of its head.

University Hospitals Drug Letter

(Continued from Page 658)

Knights and Hinton[9] concluded that the use of methylphenidate on a group of children referred for learning disabilities and behavioral difficulties was associated with greater improvement in motor control on behavior ratings as compared with the placebo control group. This improved motor control appeared to be secondary to a greater ability to pay attention. There was a very strong placebo effect, 67 percent improved on placebo compared with 88 percent on methylphenidate, according to the teacher, but both parents and teacher rated the children on methylphenidate as being less distractible and more attentive than the placebo group. The authors did emphasize, however, that methylphenidate is more effective for certain children than others and that both the drug and the attitude of the child and his parents towards drug therapy must be considered.

THERAPEUTIC REGIMEN

If the classication of increased activity level as outlined here is used, some guidelines for choice of drug become apparent. Children with the hyperkinetic impulse disorder respond well to either amphetamine or methylphenidate. Amphetamine is usually our first choice in this type of child as it is cheaper, can be obtained in liquid and in spansule form. Methylphenidate is more effective in the overactive child, while neither of these cerebral stimulants are of great value with the fidgety child. With fidgety behavior, the tranquilizers are often more effectve.

The regimen is the same for both methylphenidate and amphetamine, methylphenidate starting with 5 mg. at breakfast and noon, and amphetamine with 2½ mg. at breakfast and noon. Either drug is then increased by 2½ mg. increments weekly till optimum results are obtained. If the dosage is increased too quickly, side effects occur such as loss of appetite, interference with sleep, crying jags, "nervousness," palpitations, and, in the case of amphetamine, the child's face may become extremely pale and sallow, with dark circles under the eyes, the so-called "panda syndrome." The anorexia and sleep difficulties usually wear off after a few weeks; the facial appearance does not.

The commonest cause of poor results with drug therapy is premature discontinuation of the medication. What happens is that the mother reports that the child's behavior has not improved after several weeks of therapy. The amount used in the normal child would produce increased activity and perhaps some of the side effects mentioned here. Therefore, if there is no change or very little improvement in behavior, the dosage should be increased at weekly intervals. A method of monitoring drug dosage by telephone has been described.[10] It takes approximately two months and three phone calls to reach the optimum level of effectiveness.

The medication can be increased to alarming amounts before becoming effective, such as 160 mg. of methylphenidate or 75 mg. of amphetamine per day. The noon dose can be adjusted to a later time, such as 2:00 p.m., in order to cover the waking day. In selected cases, a third small dose might be given at 4:00 p.m. or even later provided it does not interfere with sleep. With amphetamine, a single daily dose spansule regimen can be used. The medication should be continued as long as it is beneficial, years if necessary, but ideally, attempts at reduction of dosage or even discontinuation should be made during school vacations. Some authorities do not give the medication on weekends, but in our experience, this often leads to forgetfulness on other days.

It should be emphasized that concomitant with medication, other recommendations must be made. The parents should be exhorted to take pressure off the child whenever possible, and to praise when merited in order to improve the poor self-esteem that many of these children have. The lengthened attention span, increased frustration tolerance and diminution in hyperactivity in school usually results in teacher acceptance with improved academic performance. The child becomes more amenable to direction, and parents and school authorities begin to relax. However, this child is unlikely to sit sphinx-like in the classroom and will still probably be more active than the others. Allowances must be made for fidgeting and forays that undoubtedly will take place.

As the child on medication grows older, he will reach plateaus in improvement, and there should be no hesitation in increasing the dosage. In some cases, the emotional climate in the family makes referral to a child guidance clinic necessary.

The abuse of amphetamines, particularly among teenagers, is well known and world-wide. To the best of our knowledge to date, methylphenidate has not yet been indicted in a similar manner, although it is probably only a matter of time. Recent public reaction in the United States to the indiscriminate use of drugs for school problems has resulted in litigation against some school authorities and investigation by government committees. The social revolution in the world today, particularly among the young, with its demands for the rights of the individual, the revolt against middle class values, conveyor belt educational programs and, above all, the present "drug culture" are new facets of a rapidly changing philosophy of life.[11] Therefore, the decision to initiate drug therapy for children with so-called minimal cerebal dysfunction or hyperactivity is no longer the simple issue it once was and is now complicated by the climate of the times. The psychostimulant drugs do have a place in treatment, but the high incidence of placebo effect, the natural reaction of the public against drug therapy of all kinds, a lack of knowledge concerning long-term use of

these agents, and the possibility of drug abuse are all factors to be considered in the initiation of drug therapy for learning disorders and hyperactivity. Furthermore, the effectiveness of behavioral modification techniques used in educational and behavioral disorders, reduces the need for drug therapy in many cases. If the parents object to drug therapy or the young patient indulges in delinquent behavior, or there is a delinquent member in the household, or the parents will not become involved in a necessary psychotherapeutic program, the decision to commence medication should be critically evaluated.

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I REMEMBER WHEN—DO YOU?

. . . the time the announcement was made by Drs. Banning and Best that they had isolated insulin. Also, in 1926, four years later, insulin was isolated in crystalline form by Culp and others.

Even though a number of years passed before a sufficient amount of insulin was obtainable, it was very interesting to watch the dramatic change in the treatment of diabetes in the next few years.

During my school years, from 1921 to 1926, we studied the use of multiple diets such as the low-fat diet, the high-fat diet, the Joslin diet, and many others. Within a short period of time, this was all eliminated and the dramatic change brightened the outlook for all diabetic patients, particularly for those under 10. The mortality without insulin for the 10-year-old diabetic was as high as 70 per cent. Within 10 years from the date of discovery of insulin this mortality had been reduced to less than 10 per cent and the outlook for treating the childhood type of diabetes was dramatically improved.—Otto N. Glesne, M.D., *Chairman, IMS Historical Committee.*

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THE DOCTOR'S BUSINESS

Select the Proper Personnel

LARRY E. LEAVERTON
Des Moines

While the average physician is infrequently involved in hiring new employees, some offices have a constant turnover of personnel. In addition to staff turnover, more employees per doctor are now needed as additional duties are being delegated and more administrative detail is required. If you are adding to your staff or replacing one who is leaving, it may be an opportunity to upgrade the position. We know physicians who have employed more capable assistants, have delegated more duties to them, and have seen their offices operate more efficiently.

When mistakes are made in personnel administration, they are generally in the areas of selection, indoctrination, working conditions and salary structure.

You can't be right all of the time in selecting employees, but we see a fair number of medical office employees who are misplaced in their jobs. Some may have been hired in desperation and should not have been employed in the first place. Checking references on a prospective employee is almost too basic to mention, but this is frequently neglected. Improper indoctrination usually involves a lack of understanding as to what the job entails as well as misunderstandings on matters of office policy. Errors in salary administration, where there is no regular evaluation and review, or improper salary relationships between different employees, can cause turnover.

In selecting employees, before interviewing begins, define the position to be filled and determine the qualifications. This can save valuable interviewing time. What skills are necessary? What type of personality are you seeking? What are the educational requirements? If you advertise, make the ad specific. A good application form is important. A form that gives complete information on the applicant's background, personal and educational, and references can save interview time. When interviewing, be frank about the duties and responsibilities. Don't emphasize the interesting parts and play down the dull routine tasks. If you have a hectic high pressure type office, don't describe it as a peaceful easy place to work. If the new employee will have to work late occasionally, tell her. At the close of the interview invite the applicant to ask questions. In addition to the applicant's qualifications, it is important she be able to get along with you and the rest of your staff. Will there be personality conflicts?

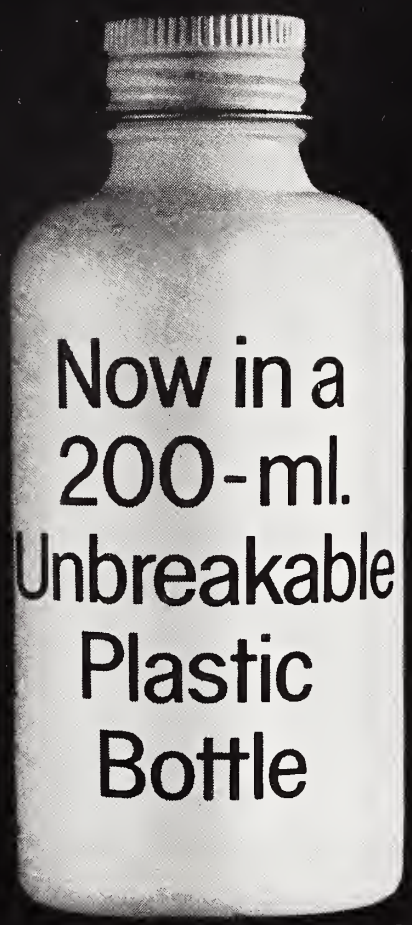
Testing can be a useful aid if used properly. You should not base the entire decision to employ on tests however. There are brief tests available which measure general mental ability, vocabulary, numerical skills and clerical aptitude. Most personnel experts claim no test can predict success on a job, but by using them you can frequently predict failures. Most employment agencies and the state employment service will test prospective employees upon request. They will also assist in screening and interviewing if requested.

Check the applicant's references by telephone, particularly former employers. Family friends, school teachers, or ministers will seldom have anything derogatory to say, but prior employers can give a valuable insight as to character, honesty and work habits. Ask specific questions as to circumstances of leaving, type and quality of work done, initiative, ability to get along with other employees, and would they re-hire?

Explain the salary, salary potential and fringe benefits. Many medical offices have retirement plans which are competitive if not superior to other offices. It is wise to pay above average salaries and expect top performance. It is necessary to be aware of salary levels for comparable offices in your area. Once set, salaries and performance should be reviewed at least annually.

Don't overpower the new employee the first few indoctrination days. Have policies in writing for reference. Too often a new employee has no one to turn to for answers to questions that arise. The answer to training by a departing employee depends upon the circumstances. If the employee is leaving voluntarily and was a good worker, the overlapping salaries involved would be a good investment.

A medical office must have capable personnel in sufficient number to meet daily needs and demands. Delegation of responsibility to available personnel is crucial. With more duties being delegated, assistants are needed who can assume more responsibility. Proper selection of capable assistants will prevent excessive turnover and minimize the loss of time, money, and efficiency.



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Scientific Articles

The Uses of Research

ROBERT E. CONDON, M.D.
Iowa City

"Good clinical investigation is the touchstone of good surgical research now, just as it was with Lister and Halsted. The surgical investigator must be a bridgetender, channeling knowledge from biologic science to the patient's bedside and back again. He traces his origin from both ends of the bridge. He is thus a bastard, and is called this by everybody. Those at one end of the bridge say he is not a very good scientist, and those at the other say he does not spend enough time in the operating room."

F. D. Moore: The University in American Surgery. Surgery, 44:1, 1958

Research is first and foremost an intellectual endeavor. It is, therefore, a proper, indeed an essential, part of the activities of any scholarly community. Research is a process which involves the diligent and careful search for new information using such techniques as controlled experimentation and replication of observations. It places a high value on consistency, rigor and objectivity in the search for new facts. The discovery of new facts leads either to the revision of previous conclusions or to the development of wholly new conclusions concerning the material under investigation. This process, in its own sequence, leads to verification of the new conclusions by appropriate application of the results in a wholly new situation.

Research, then, is a continuous intellectual process that begins with measurement and ends with application. The process doesn't stop in the middle with the discovery of new facts, nor does it stop with the development of conclusions from those facts. The application of the conclusions is as important a feature of the research process as all of the elements which precede it.

There is a kind of hierarchy of research effort in medicine. In ascending order, starting at the bottom, are those projects best characterized as *archival reviews.* This activity is really an extension of the library search process familiar to you from your undergraduate courses in English literature. Archival review involves the sorting, abstracting, correlating or codification of records or similar materials. This type of research is conducted extensively in the humanities and the social sciences. In medicine, archival review leads to the production and publication of case experience reports and collective reviews. Although the process of archival review often is labelled as research, it really amounts only to simple searching of the library or the hospital record room. Al-

Dr. Condon has this year become professor and head of the Department of Surgery at The U. of I. College of Medicine. This paper has been adapted from the Second Annual William B. Bean Lecture presented by Dr. Condon in April.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF NOVEMBER, 1971.

though an archival review attempts to derive new insights from old facts, the development of new facts is not an objective of this sort of activity and it is not, strictly speaking, research at all.

CONFIRMATORY STUDIES

On the next rung of the research activity ladder, we find *confirmatory studies* of all kinds. Essentially, these are studies which repeat previous work, usually that of other investigators. Confirmatory studies are an important collateral activity in research. For example, if conclusions from a study of other investigators are a fundamental assumption of an investigation upon which you are about to embark, verification of the previous conclusions is essential to avoid wasting a great deal of your time and effort conducting a study based on inaccurate assumptions. However essential a confirmatory study may be at the beginning of a new research project, such studies do not require very much in the way of new or original thought and they do not generate, in most instances, new facts. Confirmation of the findings of other investigators is a necessary job that somebody has to get done, but, in general, confirmatory studies like archival reviews are not research in the strict definition of that term.

In contrast to archival reviews and confirmatory studies, there are two further kinds of investigations—bench research and clinical research—in which input of original thought is their outstanding characteristic. Indeed, if an archival review can be described as the derivation of new insights from old data, both bench and clinical research can be characterized as the derivation of new insights from new data.

BENCH RESEARCH

The essential feature of *bench research* is that it does not directly involve human beings as the subjects of experimentation or investigation. Bench research often is referred to as basic research. The label "basic" automatically carries a connotation, even an assumption, that the work is scientifically "good." Bench research, for example, may be conducted entirely in a chemistry laboratory or it may involve experiments with a variety of lower animals as subjects. Because it does not involve human beings in experimental manipulation, bench research can be controlled with more ease and precision and the experiments can be repeated more frequently and within a shorter time span than is the case in clinical research projects. Keep in mind that bench research is basic in two senses. First, it is fundamental; that is, it is the foundation or the substructure of clinical research. Second, it also is basic in the sense that it is preliminary; that is, it comes before. Before what? Before clinical research.

CLINICAL RESEARCH

Clinical research, in my view, is the research activity at the top of the ladder. In medicine, clinical research is the natural culmination of all investigative effort. Although clinical research uses the same tools and methods as does bench research, its essential feature, obviously, is that it involves human beings as experimental subjects. Clinical research, therefore, requires physicians as essential participants in the research process.

The use of human beings as experimental subjects immediately introduces elements into clinical research which are unique. The conduct of a clinical research project is much more difficult than a similar bench research project. There are more variables in a clinical research setting; therefore, precise controls are more difficult to arrange. Ethical considerations involving informed consent and protection of the experimental subjects apply in clinical research; these are not important elements of bench research. It takes more time to acquire reliable data in a clinical setting. You can't simply repeat the experiment at will; you must wait for appropriate clinical material to present itself. It takes more people to conduct and complete a clinical research study, because the study is necessarily conducted in the context of therapeusis. Because of all these unique features of clinical research, such research is much more expensive in terms of dollar costs per quantum of data produced than is bench research. It has always seemed a paradox to me that though clinical research is monetarily more expensive than bench research, by and large clinical research is less well supported financially.

Clinical research is often thought of as applied research. The appellation, "applied," automatically carries a connotation of being

somewhat *declassé*. This connotation has been less apparent in recent years, perhaps, than formerly, but the attitude still lingers. In a way, patronizing and demeaning attitudes toward clinical research are a reflection of an old controversy between science, viewed as pure or basic research, and engineering, viewed as technology or applied science. The question is asked of clinical research in medicine, "Is it science?" But, the same question could be asked in relation to the most esoteric aspects of so-called pure science, "Is it science? Or, is it really philosophy?"

The apparent dichotomy between bench research and clinical research is, in fact, a spurious division. Bench work and clinical research are elements in a continuum, the one leading to and supporting the other. I have never really understood why bench work is presumed so automatically to be a worthwhile endeavor and clinical investigation is so easily presumed to be unworthy or unscientific. My purpose is not to dwell on this controversy, but to indicate to you that clinical research, in my view, is real science and is the best example of a fully flowered research effort. Since clinical research involves the most important animal on earth as its experimental subject, I think I am entitled to this prejudice and so are you. Clinical research also is the best example of an effective research effort in medicine because it fulfills all of the features which I outlined to you at the beginning of this lecture and which, to my mind, define research. Clinical research is an intellectual endeavor whose objective is the discovery of new facts about disease or therapeutics which will lead to more effective treatment of the illnesses of our fellow men.

CHARACTERISTICS OF CLINICAL RESEARCH

Now, let me turn for a few minutes to a fuller discussion of some of the characteristics of clinical research. I have outlined seven characteristics of clinical research (Table I). The first, therapeutic focus, indicates that a clinical research project ideally begins with an orientation toward the care of sick patients or the understanding of disease. Clinical research does not focus primarily on normal processes, except as knowledge of normal processes is needed to permit effective investigation or development of new therapy. The emphasis of clinical research is on disease; investigation of normal processes is a subordinate activity. Clinical research does not involve a Mount Everest approach; something isn't studied simply "because it is there." We study patients in order to improve our therapy. The genesis of a clinical research project involves an experimenter recognizing that treatment of a certain disorder is, at present, unsatisfactory. We ask ourselves, What might be better?

TABLE I

CHARACTERISTICS OF CLINICAL RESEARCH

1. Therapeutic Focus
2. Animal Basis
3. Clinically Important Subjects Only
4. Informed Consent
5. Peer Review
6. Pilot Studies
7. Controlled Clinical Trials

ANIMAL BASIS

The second important characteristic of clinical research is that there is always a preceding animal basis for the research effort. It is essential to conduct appropriate animal studies prior to studying humans. I will not dwell on this point, nor do I think that I really need to justify the necessity of studies in lower animals prior to studies in human beings. I bring this point up in relation to the efforts of the antivivisectionists. Even those of you who have not yet or never will personally conduct a clinical research study should keep in mind that animal studies are the essential background in developing all therapeutic efforts. The forces which attempt to restrict animal experimentation may not realize it, but successful culmination of their efforts would result in the necessity of doing initial therapeutic experimentation in human beings. I think this is totally unacceptable and unethical. It is for this important reason that antivivisectionists must be resisted by all of the medical profession. More importantly, our patients need to be educated to the importance of animal research in the development of new and effective therapy for disease.

ONLY IMPORTANT MATTERS

The third characteristic of clinical research is that only important matters are the subject

of investigation. Trivial matters are not investigated in human beings. As an example of trivia: the possible utility of a very nephrotoxic antibiotic in the treatment of minor lacerations might be of interest, but it is simply not a clinically important question and not a suitable subject for study in human beings. The risks of any study in humans have to be proportional to the importance, in terms of threat to life and limb, of the patient's disease. Cancer chemotherapy is a good example of what I mean. Cancer is a life-threatening disease; more risks to a cancer patient can be undertaken in investigating new therapy of such disease than can be undertaken in the investigation of disease states which are not so threatening to life.

INFORMED CONSENT

A fourth important feature of clinical research is a necessity to obtain informed consent from each experimental subject. While we all recognize that a signed consent form—a piece of paper—is both a legal and medically necessary record, it is not a substitute for a personal explanation by the experimenter to the patient of the studies proposed and the risks involved. I want to emphasize the personal nature of this explanation. It is important to outline to the patient the possible risks, consequences and complications of the experiment and to do so in language which the patient understands.

Informed consent also involves an explicit statement to the patient of whether or not you are using an untried or unproven therapy and whether or not the experimental therapy is or is not central to care of the patient's complaint or problem. Both of these elements are important. Usually the untried or unproven nature of experimental therapy will be explained, but the centrality or lack of it in the patient's therapeutic plan is sometimes forgotten. Our objective must be to allow the patient to make an informed decision about participation in the study. Apprehension that frank statements about the experimental nature of the study and about the risks and complications that possibly may be involved will lead to non-participation by most patients is unfounded in my experience. This apprehension is usually that of the physician and not of the patient. Patients, by and large, do what you ask them to do so long as they trust you. This is an important trust and one that must not be abused.

PEER REVIEW

The fifth distinctive element of clinical research is that it requires peer review. Peer review protects both the investigator and the patient from their mutual enthusiasms: the investigator from his enthusiasm to investigate, and the patient from his enthusiasm to participate. Peer review assures that informed consent is obtained from each experimental subject and that the risks of the investigation are proportionate to the threat of the disease being investigated. Peer review provides a mechanism to judge that the methods of investigation are appropriate, sufficiently rigorous, well-controlled and likely to answer the questions being asked. Such review also insures that no unnecessary suffering or disability on the part of the patient is involved in the investigation. Peer review also provides a mechanism to monitor the conduct and the results of the study as they are generated so that investigation stops when reliable data and answers have been obtained.

I think we all would agree that peer review of clinical investigation is both desirable and necessary. I think we all recognize that, like any other system, our system of peer review is not perfect and is sometimes subject to abuse. One of the common abuses, proportionately not large but it does keep cropping up, is review of clinical research by non-peers. I view with considerable skepticism, review of clinical research projects by a majority of non-clinicians. And in certain highly specialized areas, I view with similar skepticism review even by other clinicians. The point here is that peer reviewers should be at least as knowledgeable as the experimenter about the subject being investigated.

A second abuse of peer review involves what may be characterized as "the intolerant establishment." In this connection, let me quote a statement of Rene Dubos, the world famous microbiologist: "Official academies are more likely to exhibit enthusiasm over improvement of the commonplace than to recognize the unexpected when it is first brought to them." Brand new ideas, especially new thera-

peutic ideas, have difficulty being accepted, have difficulty passing peer review. The only answer to this problem is, if you are sure you are correct, to keep plugging at the bench. Eventually you will answer all objections and convince enough of your colleagues so that your clinical experiment will go forward.

A third kind of abuse of peer review involves what may be characterized as "the intolerant geheimrat." An answer to this problem of the "intolerant geheimrat" is difficult since the problem is part and parcel of any "establishment." Part of the answer, certainly, involves review by more than one peer. More importantly, those of us who act as reviewers must be sensitive to the possible existence of intolerant attitudes in ourselves and in our fellow peer reviewers. We must reject such prejudices, however difficult a human process that may be, and judge research projects on their merits.

PILOT STUDY

The next topic I would like to talk about with you—the sixth feature of clinical research—is the pilot study. After a research project has been designed and the animal work has been conducted, the bench work has been collated, and appropriate consents and review have been obtained, we are ready to begin clinical experimentation. The objective of a pilot study is the investigation of a small group of patients to determine that the risks of the research project have been judged correctly, that no unexpected or untoward results ensue from the application of novel therapy and that, in fact, the new therapy is feasible and achieves something like the results desired. The conduct of a pilot study involves only small numbers of patients and, usually, controls are not needed since the pilot study is, in reality, only a feasibility study.

Successful conduct of a pilot study creates its own problems. Even on the basis of small numbers of treated patients, if the new therapy is successful, certain physicians feel that they now are placed in a sort of moral dilemma. The pilot study has identified an apparently successful new therapy, although in a situation which is uncontrolled. Reversion to older therapy which was not quite as successful is then resisted, usually on grounds of ethics or morals. As a result, accumulation of patient experience without controls goes on in a continuing sort of pilot study. I must state clearly I think that such a so-called moral dilemma is nonsense. It is not a dilemma at all. The chances are at least as good that when the new and apparently efficacious therapy is finally subjected to a controlled trial, that it won't be any more effective than the old therapy or perhaps not even as good. It may not work out over the long haul. And if it does not work out, then all of those patients who were subjected to the new treatment in the prolonged pilot study will have been subjected to a less effective therapy; this is at least as immoral, if not more so, than persisting with older therapy.

Let me give a concrete example of what I mean. About 15 years ago, there was enthusiasm in surgical circles in this country for an operation called internal mammary artery ligation in patients who had severe angina pectoris. The internal mammary artery was identified in an upper intercostal space along the sternum and ligated in situ. Many patients experienced immediate relief of angina and improved exercise tolerance. The results of initial pilot studies seemed so clear to the advocates of this new therapy that controlled trials were not initially done. Literally thousands of patients in this country were subjected to this new form of therapy until, in the late 1950's, some courageous surgeons decided that it was really long beyond the time when this new therapy should be subjected to a controlled trial. They, therefore, explained to their patients what they were about and sorted their patients into two groups. Some got ligated and some didn't. Both groups had an incision of the skin which was sutured so that there was no way, externally, of telling the difference between the two groups. Postoperative evaluation and follow up were conducted by physicians who had no idea which operation had been done. As expected, the patients who were ligated had an improvement in their electrocardiograms and in their exercise tolerance. What was unexpected was that patients who were not ligated also showed improved exercise tolerance as measured on a treadmill (40 per cent) and objective improvement in their electrocardiograms (20 per cent).

What accounts for these results? The an-

swer lies in the placebo reactor phenomenon. Any therapeutic manipulation, however bizarre and physiologically unfounded, is likely to yield good results in at least some patients. In any pilot study, even one in which the therapy under trial will eventually prove under controlled conditions to be worthless, some patients are going to be improved. This is why it is necessary when a pilot study proves feasibility to move immediately on to the next step, which is a controlled clinical trial.

CLINICAL TRIAL

Repeated examples of the failure of clinical investigators and their peer reviewers to insist on moving from the pilot study stage to the controlled clinical trial stage in therapeutic investigation have lead Chalmers and others to advocate elimination of pilot studies in clinical research. I do not think this is necessary and, in fact, elimination of pilot studies would be positively undesirable in surgery because the end-result of therapy is not readily reversible. Whenever a pilot study indicates a proposed new therapy is feasible, we all must insist that the investigators then go on to the next step, the controlled clinical trial. There is no getting around it—a controlled trial must be done.

The essential features of a controlled clinical trial, the seventh listed characteristic of clinical research, involve the choice of representative patients who are randomly allocated into treatment groups having only a single inter-group variable and the evaluation of results by appropriate statistical methods. In this way, reasonably reliable answers can be obtained to the questions posed using small numbers of patients and in a shorter period of time.

Let me illustrate from medical history a classic controlled clinical trial. Scurvy used to affect sailors who were away from land for more than a few weeks and was a major problem in the British Navy and Merchant Marine in the 17th and 18th Centuries. It had been noted for some 20 years prior to 1747, when James Lind did his clinical study of scurvy, that sailors manning ships between southern Spain and England, bringing in oranges and lemons from Spain, were not subject to scurvy as were sailors on other routes. The possible significance of that finding, however, was lost among the variety of other recommendations for the treatment of scurvy—vitriol enemas, vinegar and oatmeal, all kinds of remedies like that.

In 1747, Lind studied at sea a group of 15 sailors suffering from scurvy. They were all confined to the same hold in the ship and all received the same miserable shipboard diet. They were divided into half a dozen groups of two or three sailors each. Each group received one of the then current recommended therapies for scurvy. The result in the group receiving oranges and lemons was perfectly remarkable. To quote Lind, "After only six days, one of the men was back at full duty and the other was so improved that he became nurse to the others who remained ill." This classic study indicates the solidity of data which can be obtained from small numbers of patients in a properly organized controlled clinical trial. The concept of controls seems so obvious today that I will not spend much time convincing you of it. But, I think I should remind you the regular and accepted use of controlled trials in medicine is a post World War II phenomenon. Although some controlled clinical trials were conducted before that time, it is only in the last two decades that we have recognized how powerful an investigative tool the controlled clinical trial really is.

Are controls always necessary? No, they are not. There is a great deal of accepted and efficacious therapy which has never been subjected to a controlled trial. Controls are not needed in two situations. In both of these situations, therapy prior to introduction of the experimental modality is either nonexistent or totally ineffective. In the first type of situation, introduction of new therapy produces complete relief of symptoms and the establishment of cure. Removal of the new therapy produces recurrence. You repeat this for several cycles. Under such circumstances, Koch's postulates have been proved. It is not really necessary to set up a controlled trial to compare the newer and obviously effective therapy with the older ineffective therapy.

As an example, there is the story about non-tropical sprue and the presence of gluten in the diet. This relationship was discovered during WWII in Dutch concentration camps. Wheat was not always available for bread and during such periods those patients who

had non-tropical sprue had remarkable improvement in their symptoms. As wheat became occasionally available, they would then get a recurrence. This clinical observation was followed up in a very small group of patients in the late 1940's and, subsequently, the gluten-free diet was introduced into clinical therapy of non-tropical sprue. This is one set of circumstances in which a formal organized controlled clinical trial is obviously unnecessary.

A second circumstance in which a controlled trial is unnecessary exists when such an enormous clinical experience has been accumulated that common sense simply dictates that the new therapy is efficacious. As an example, consider the introduction of digitalis in the treatment of heart failure. We now have several centuries of experience with this drug and it is obviously totally unnecessary to submit it to a controlled clinical trial. Having recognized there are situations in which controlled trials of new therapy may be unnecessary, I should also remind you that for most situations today in which new therapy is being introduced, a controlled clinical trial is absolutely necessary if the advantages or disadvantages of novel therapy are to be compared efficiently with standard accepted therapies.

WHO DOES RESEARCH AND WHO PAYS FOR IT?

The opportunity to do research is obviously available to everyone in medicine to one degree or another. It may be difficult for a private practitioner to arrange the necessary time, to have consultants available and to develop appropriate research facilities. But it can be done. The important point, to my mind, is that the man in private practice has no obligation to conduct research. Those of us in academic practice have an absolute obligation to conduct research. Although we may have no less difficulty arranging time, consultants and facilities, our obligation to conduct research is the essential feature that distinguishes academic practice from private practice.

Every physician, no matter what setting in which he practices, takes on an obligation through tradition and the Hippocratic oath to heal the sick and to teach his successors. These obligations to heal and to teach are shared alike by those of us in academia and our colleagues in private practice. But it is we, the academic physicians and surgeons, who have a special obligation to discover new facts, to conduct research. I cannot emphasize too strongly my belief that research is a fundamental obligation of every medical academician.

There are a number of sources of research support. Private donors and private foundations have supported medical research programs in the past and still do, although their funds are relatively limited. Lately, there has been an increasing shift of emphasis on the part of private donors away from medicine and into politics, economics and similar social issues. Private health agencies, such as the American Heart Association and the American Cancer Society, similarly have supported medical research and continue to do so but their budgets also are relatively limited in relation to the magnitude of the health problems currently facing us.

Public agencies—the National Institutes of Health, NASA and the armed services—have in the past few decades provided the lion's share of research money and probably will continue to do so in the near future. There are two aspects which should concern us regarding both the present and the future Federal funding of research. One concern has to do with what I believe will be an increasing emphasis on the cost accounting of medical care, the other with the probable consequences of our present engagement in Southeast Asia.

A lot of the costs of medical research in the clinical arena have been, in the past, subsumed in the general cost of daily hospital charges and in professional fees. Clinical research never has been funded directly in amounts which have any relationship to real need or the magnitude of actual research effort. As national health insurance becomes a reality in this country, and as the costs of health care spiral upward, there is going to be an increasing emphasis on accounting down to the last penny the cost of delivering health care, with emphasis on elimination of all items not directly necessary for the care of the patient's immediate problem. Clinical research will no longer be supported or even tolerated as a by-product of patient care. We must move now to develop alternative sources of funding clinical research and we must educate our patients to the necessity of this sup-

port for their own future well being.

A second aspect of concern relating to Federal research funding has to do with the Vietnam war. Three times in the last three decades we have been involved in a major war. Each time, that event has had three major consequences. Inflation has markedly reduced the net dollar worth of existing research budgets. Diversion of Federal funds away from research and into the military effort has resulted in a contracture of research effort. Most significant has been the wave of anti-intellectualism which has followed the two previous episodes and which I see beginning to follow the present one. The degree of anti-intellectualism has been in direct proportion to the degree of our loss in each war. I suspect that those of us who view ourselves as intellectuals and who participate in the academic process are going to be in for a few rough years in the immediate future. Since research is an intellectual endeavor, it will suffer repression and severe financial strictures as the newest wave of anti-intellectualism sweeps the country over the next two or three years.

THE USES OF RESEARCH

My remarks up to now have concerned the operational use, the *conduct* of research. What about other uses? I am not going to say anything about the institutional use of research in a public relation sense, although I think you are aware of the fact that research programs do accrue a positive benefit to universities and medical schools such as ours. I am also going to stay strictly away from consideration of the use of research as a power base for empire building by academics and others. I am going now to try to make some statements about the personal uses of research.

Of what benefit is research to the researcher? This is the third institution with which I have been associated since becoming a full-fledged academic surgeon. In each of my previous associations, introduction of research experiences as a requirement in postgraduate surgical residency programs has been met with considerable resistance. The resistance is understandable, since in each of these instances the exposure to research imposed upon the residents an additional requirement of time in what is already an increasingly long period of postgraduate education and training. Countering their resistance, I assured the residents that research experience was very worthwhile but, I couldn't really articulate for them just what it was about participation in research that I thought they might find so valuable.

In all honesty, the residents participated with considerable reluctance and initially looked upon the research requirement with a very jaundiced eye. But when they were finished with their year, without exception and to a man they agreed that it had been a very worthwhile investment of their time and energy. I then asked them what they had found so worthwhile. They, as I had been, were unable to articulate just what the benefits were. So you can see I am in trouble. I am not going to be able to identify for you all or even a majority of the advantages that accrue to individuals participating in an active research program. But I can list a few of the more obvious advantages.

Research brings a satisfaction of one's inner curiosity about how things work and why they work. It also provides a stimulus and a challenge; any good research project provides some answers, but always kicks up many more questions in the course of developing those answers. New issues are thus raised and new challenges become apparent.

It is also true that within a limited sphere participation in research increases the depth of one's knowledge and understanding of medicine. In the process of conducting a research project, you also learn the necessity of persistence and diligence. In my experience, nothing ever works the first time, never works well until the tenth or even the 20th time. Along about the 50th time you do an experiment, it begins to work the way you expected it to at the beginning. Such experience keeps you going the next time some problem doesn't work out readily at the beginning.

Conducting a research project really involves a struggle to get data which, in turn, provides a better appreciation of the difficulties of acquiring thoroughly reliable data. This is an appreciation that cannot be gained in any other way and it sharpens one's critical facilities enormously. You become a better student, you will be a better evaluator. You come to

recognize that what is not published is often as important as what is published. You learn to read between the lines. You gain an appreciation of the open mind. If you become an academician, you will find that as a researcher you are a more engaging teacher, you are more on top of things than if you were not engaged in a research program.

Active, personal participation in research at an early stage in one's career in medicine will also provide an appreciation of the tentative nature of all conclusions derived from observational data and, consequently, the tentative nature of recommendations that flow from those conclusions. There are no facts that are not readily subject to change as a result of future investigation. There is no truth for tomorrow. There is only truth for today.

One concluding thought has to do with the place of research in a medical school curriculum. I am thinking particularly now of undergraduate medical students. Research is an important student activity, particularly for the undergraduate student. It should be available to every student who wishes to avail himself of it. But, in my judgment, it would be a mistake to make the conduct of a research project a requirement for the medical degree. I am sure you are aware that in some schools there are such requirements. I think such a requirement is a mistake. The fact is that not all students are equally curious. This does not mean that they are not smart—they are just not curious in the way that drives some of us to search out things. Also, not all students are as capable and diligent as the faculty might wish them to be. If such students are forced to do research, they will generally do second- or third-rate work. The faculty is then put in the difficult position of either accepting a poor quality job or of denying the student his degree. I think that is putting the faculty in an unnecessary dilemma. Another important factor to remember is that student research programs are expensive. Before any such program gets very serious consideration, the source of funding has to be identified. In sum, I think that some medical students will always participate in research and they should be encouraged to do so. But I would be opposed to making every student do research.

The second, and perhaps the more important, message to students is that they always remember they are clinicians first. They have become, or are learning to become, physicians. They are highly skilled in the care of sick people. They must remember that clinical research requires the application of skills as a physician. Research, particularly bench research, which fails to use the talents and the training which have been acquired and developed is really a waste. In my view, clinical research is the appropriate application of the skills acquired in medical school.

One other thing: whether or not subsequently the student becomes an active physician researcher, I hope he won't forget how important research is in developing and maintaining the academic atmosphere. Research is a fundamental and important activity of this College of Medicine. I hope in the future its graduates, as a practical matter, support funding of the research programs of this and other medical schools.

30th Year for U. S. Savings Bonds

The United States Savings Bond program is observing its thirtieth anniversary this year with better than 52 billion dollars in outstanding Series E and H bonds.

U. S. Savings Bonds are non-marketable, non-negotiable securities, issued only in registered form and payable only to the registered owners during thir lifetime.

The Series E Bond (sold only in seven denominations) is an appreciation-type security that is purchased at a cost of 75 per cent of face value; interest is paid by gradual increase in redemption value. The Series H Bond (sold in three denominations) is a current-income security, purchased at face (par) value; interest is paid by Treasury check every six months following purchase date.

The current interest rate on Savings Bonds is 5½ per cent, compounded semiannually, if Bonds are held to maturity or beyond. E Bonds now mature in 5 years, 10 months; H Bonds mature in 10 years.

Bonds are available through Payroll Savings Plans, Bond-a-Month Plans at banks, and they may be purchased individually at any time.

Double Vagina With Double Uterus (Didelphys) Containing Endometrial Adenocarcinoma

Report of a Case

ALLEN D. ANNEBERG, M.D., F.A.C.O.G.
Carroll

Miss M. B., age 54, a single virgin, having not menstruated in seven years, presented with large vaginal clots from both small vaginal orifices.

Medical work up prior to D&C revealed a labile essential hypertension ranging from 170/100 to 130/80, a normal electrocardiogram and chest X-ray, a normal blood urea nitrogen and fasting blood sugar, and a normal intravenous pyelogram and X-rays of the colon. The hematocrit was 33 per cent on admission to the hospital. The patient weighed 140 pounds and stood five feet tall. She was administered a general anesthetic, and a D&C of the slightly larger right vaginal tract was accomplished with great difficulty through a virginal Grave's speculum, without benefit of a tenaculum. The left vaginal tract barely admitted a #18 French Foley catheter. A vagino-hysterogram, taken after the injection of several cc.'s of Salpix® contrast medium through the Foley catheter, confirmed a probable uterus didelphys. A frozen section of the yellow friable endometrial tissue was obtained through the retrocessed pin-point right cervical os. It revealed fairly well differentiated polypoid adenocarcinoma of the uterine endometrium. Permanent pathology sections later confirmed this (Figure 1).

It was concluded that Heyman radium capsule installation was technically and physically impossible. Abdominal hysterectomy and bilateral salpingo-oophorectomy was selected as the therapy for this fairly well differentiated lesion and was carried out three days after D&C, and after three daily transfusions of packed cells.

The hematocrit was 38 per cent prior to hysterectomy and no further transfusions were needed during or after surgery. The excised bicornuate uterus septus duplex, with the polypoid cancer visible, is shown in Figure 2. There was neither gross nor microscopic spread beyond the uterus, and a cure is probable, although time will tell.

COMMENT AND SUMMARY

This appears to be the fifty-fifth reported case of uterus didelphys with duplication of the vagina, also containing adenocarcinoma. I have been unable to locate any further additions to the world's literature since JOURNAL OF THE IOWA MEDICAL SOCIETY printed the report

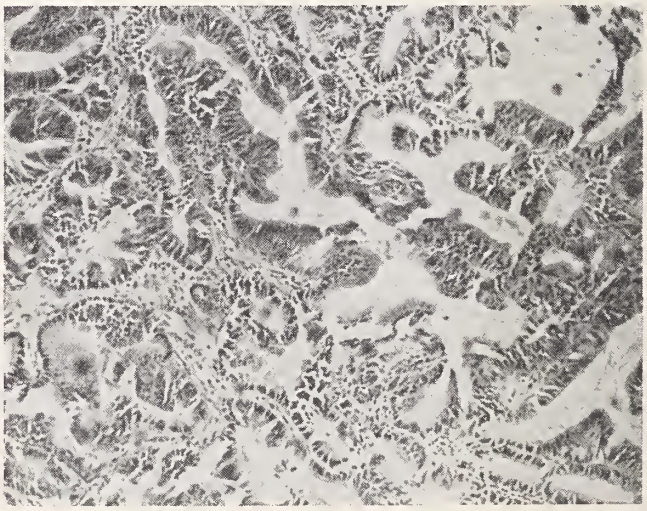

Figure 1. Well differentiated adenocarcinoma of endometrium from left uterine cavity. (200X H & E)

Dr. Anneberg is in the private practice of obstetrics and gynecology in Carroll. His report is of a case seen at the St. Anthony Regional Hospital in Carroll.

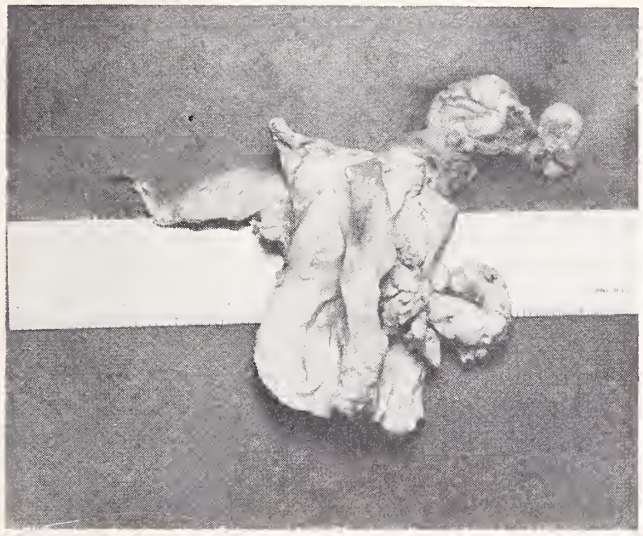

Figure 2. Bicornuate uterus septus duplex with tumor in left uterine cavity.

by Drs. Grant and Sedlacek.[1] The first definitive review of the literature by von Frangue[2] in 1930 has been followed by several subsequent reviews.[3, 4, 5] One of the most complete reviews was prepared in 1961 by Nicholson.[5] He listed 87 anomalies associated with malignancies. Fifty of these were cases of carcinoma of the endometrium and 37 were carcinoma of the cervix. Not included was the case presented in the discussion following his own paper,[5] the case reported by Duncan and John[4] in 1962, the case by Braun,[6] and the last case added to the literature from Iowa. Thus, the case discussed here appears to be the fifty-fifth case of double vagina, with a double uterus containing adenocarcinoma of the endometrium, reported in the world's literature.

ACKNOWLEDGEMENTS

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6. Eleanor Roverud, M.D. Pathologist—Pathology, Photomicrograph and Photography
7. Erich Rachut, M-2, U. I. Medical Student Summer Trainee under Medical Education in Community Orientation (M.E.C.O.)—Literature Review

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Cardiac and Respiratory Disease Conference

A Cardiac and Respiratory Disease Conference will be presented at the University of Iowa College of Medicine on Friday, December 3. The conference is a joint project of the Department of Internal Medicine, Iowa Thoracic Society and Iowa Heart Association.

The morning program will be devoted to the following cardiac topics and will include the speakers noted:

Therapeutic Implications of the Autonomic Control of the Heart in Myocardial Infarction—*Dwain L. Eckberg, M.D., University of Iowa.*

Heart Block: New Concepts Clarify Confusing Clinical Problem—*Richard E. Kerber, M.D., University of Iowa.*

Comments on Natural History and Management of Angina Pectoris With Emphasis on Jump Graph—*J. Michael Kioschos, M.D., University of Iowa.*

Evaluation of the Hypertensive Patient—*Harriet P. Dustan, M.D., Cleveland Clinic.*

A morning discussion period is planned to include the speakers listed plus W. R. Wilson, M.D., and A. L. Mark, M.D., both of the U. of I.

Afternoon respiratory topics will be:

Fat Embolus Syndrome—*David B. Kalayjian, M.D., University of Iowa.*

Conservative Management of Respiratory Failure—*Louis J. Kettel, M.D., University of Arizona.*

Abnormalities of the Control of Respiration in Pickwickian and Other Types of Hypoventilation Syndromes—*Ruy V. Lourenco, M.D., University of Illinois.*

BCG Vaccine and Tumors—*S. F. Brunk, M.D., University of Iowa.*

Symposia: Cor Pulmonale—*Dr. Kettel, Dr. Lourenco, Prashant K. Mukerjee, M.D., and David Funk, M.D., both of the University of Iowa.*

Disseminated Intravascular Coagulation in Children

ANDRÉ D. LASCARI, M.D.
Iowa City

When freshly drawn blood is introduced into a glass tube, in a short time a clot will characteristically result. Why does the blood clot in such a situation? When blood comes in contact with glass the coagulation system is activated and the blood then proceeds to form a clot. This is identical to that which occurs in the blood vessels of the body when the coagulation system is triggered, not by glass, but by other mechanisms resulting in intravascular coagulation. It may be widespread and therefore is called disseminated intravascular coagulation. How do we prevent the blood from clotting in the glass tube—obviously by adding an anticoagulant. So even in the presence of a triggering mechanism blood can be prevented from clotting with the use of anticoagulants. Thus, a tube of clotted blood and a tube of heparinized blood figuratively represent the concepts we will present here. For purposes of definition disseminated intravascular coagulation is synonymous with consumption coagulopathy and intravascular coagulopathy.

My objectives are to provide you an understanding of:

1) the pathophysiology of disseminated intravascular coagulation,

2) the diseases in children with which it may be associated,

3) how you would make a diagnosis in the next patient you may see with this complication, and

4) when the use of heparin is indicated and how it should be used.

Intravascular clotting occurs when a substance enters the circulation which can trigger the coagulation system[1] (Table 1). The end result of the activation of the clotting sequence is fibrin formation which may or may not result in thrombosis of the small vessels of various organs. Local tissue enzymes called fibrinolysins are activated by the clot in an attempt to digest the clot and if it is dissolved no thrombosis will result. If the fibrinolytic system is highly active, severe intravascular coagulation can occur without necessarily developing occlusive thrombi. When the clots are not dissolved, thrombosis with resultant infarction and ischemic necrosis may occur in various organs such as the brain, kidneys, lungs, liver and GI tract.

TABLE I

MECHANISM TRIGGERING D.I.V.C.

1. Bacterial endotoxin
2. Release of tissue thromboplastin
3. Proteolytic enzymes
4. Intravascular hemolysis
5. Anoxia
6. Particulate or colloidal matter
7. Endothelial damage

As the clotting takes place coagulation factors and platelets are consumed as they are the building blocks, so to speak, of the clot (Table 2). The intravascular coagulation process may occur rapidly or rather slowly and may be mild or quite extensive and severe. If the process is slow, coagulaton factors will not be consumed rapidly and the liver may be able to synthesize adequate amounts of coagulation factors replacing the amount consumed and no bleeding will result.

In severe intravascular coagulation, however, the coagulation factors are consumed to a point where the factors drop below the minimal level required for normal hemostasis and bleeding may result. The only effective method to stop the clotting and thereby the con-

Dr. Lascari is an assistant professor in the Department of Pediatrics in The U. of I. College of Medicine. This paper was presented at the 1970 Blank Hospital Conference as the 14th Lee Forrest Hill Lecture.

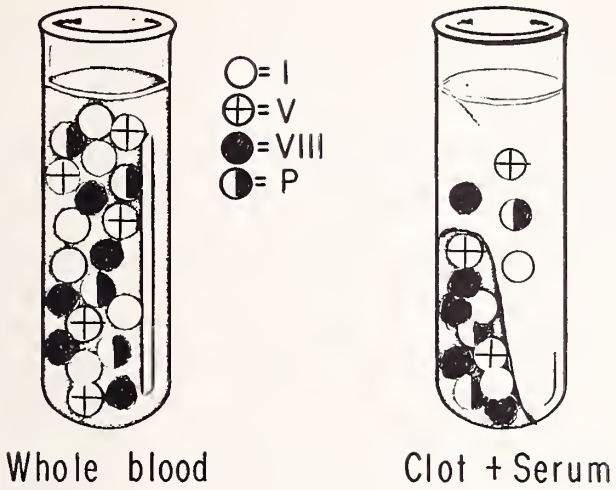

TABLE 2

sumption of the coagulation factors is by anticoagulation with heparin.

Thus, disseminated intravascular coagulation can hurt the patient two ways: 1) from thrombosis, and 2) from hemorrhage (Table 3). In some patients the degree of clotting may

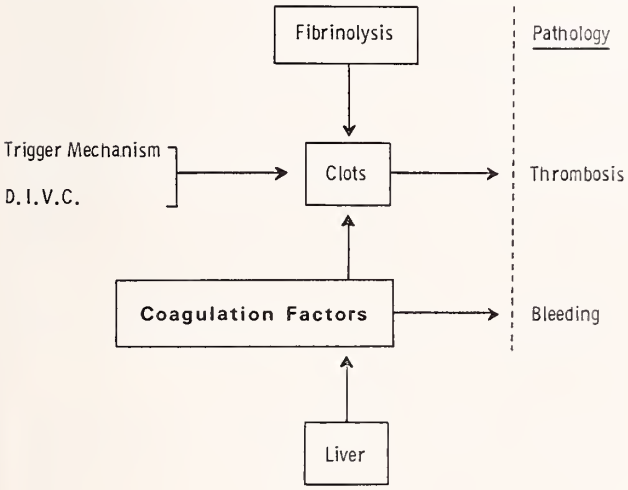

TABLE 3

be so mild that no symptoms are present and the only abnormality is the clotting studies. In others, symptoms caused by thrombosis may predominate or hemorrhage may be the primary problem or both may occur in the same patient. Other symptoms which may be associated with disseminated intravascular coagulation are:

hypotension
oliguria or anuria
convulsions—secondary to thrombosis or intracranial bleed secondary to the consumption of clotting factors
nausea, vomiting, diarrhea
dyspnea and cyanosis

DISEASES ASSOCIATED WITH DISSEMINATED INTRAVASCULAR COAGULATION

NEWBORN Abruptio placenta is associated with clotting which occurs behind the placenta and which may deplete the mother's coagulation factors. Recently several reported infants born to mothers with abruptio placenta have had intravascular coagulation.[2, 3] It is likely placenta thromboplastin was released into the infants' circulation triggering coagulation.

Infants born of mothers with toxemia of

TABLE 4
D.I.V.C. IN THE NEWBORN

1. Abruptio placenta
2. Toxemia
3. Twin pregnancy—macerated sibling
4. Severe asphyxia
5. Infection—sepsis, herpes, rubella, cytomegalovirus
6. Large hemangiomas
7. Renal vein thrombosis

pregnancy or infants severely asphyxiated at birth have had intravascular coagulation.[2] When one of the twins dies in utero there may be transmission of thromboplastic material from the dead fetus through vascular shunts in a monochorionic placenta to the surviving twin resulting in disseminated intravascular coagulation. Disseminated intravascular coagulation has been documented in newborns with cytomegalovirus, disseminated herpes simplex, rubella[4] and bacterial sepsis. Renal vein thrombosis can result in thrombocytopenia from consumption of platelets (Table 4).

INFECTIONS Sepsis due to gram negative or gram positive organisms can cause intravascular coagulation particularly if the patient is hypotensive.[5] Gram negative infections can also cause thrombocytopenia as a result of platelet aggregation caused by endotoxin without necessarily always precipitating intravascular coagulation.

Meningococcemia may be accompanied by disseminated intravascular coagulation. There are many reports of patients with this infection who have had improvement in their clotting studies with heparinization but there is no clear proof at this point that heparinization increases survival.[6] However, I believe these patients should be heparinized when disseminated intravascular coagulation is documented.

Approximately 50 per cent of patients with Rocky Mountain spotted fever have a decrease in their platelet counts and a small per cent of them may have evidence of intravascular coagulation.[7] In most of these cases, however, the intravascular coagulation is mild and does not require heparinization.

Purpura fulminans usually occurs in the convalescent stage of an acute infectious illness such as rubeola, chickenpox, scarlet fever and streptococcal infections. Large ecchymotic areas may develop in the skin and may become gangrenous. The process is secondary to intravascular coagulation and heparinization is the treatment of choice.

Patients who have been splenectomized are particularly prone to fulminating pneumococcal infections particularly in children under two years of age who have had splenectomy for severe underlying diseases. It is now known that these patients are also very prone to have severe disseminated intravascular coagulation associated with pneumococcal infections. Of four children recently described with pneumococcal infections and disseminated intravascular coagulation, one was an 11-year-old boy who had a traumatic splenectomy and another patient was a 12-year-old who had had a splenectomy for idiopathic thrombocytopenic purpura.[8] In a report of nine such cases in adults, four had had traumatic splenectomies and did not have any underlying disease.[9] These reports increase my respect for the spleen and I do not like to detach it from a patient of any age unless absolutely necessary (Table 5).

TABLE 5

D.I.V.C. IN CHILDREN

1. Infections
2. Hemolytic—uremic syndrome
3. Large hemangiomas
4. Malignancies
5. Purpura fulminans
6. Transfusion reactions
7. Cyanotic heart disease

HEMOLYTIC-UREMIC SYNDROME The hemolytic uremic syndrome occurs predominately in children under three years of age who have a history of URI or gastroenteritis often with bloody diarrhea and vomiting. In about two to five days, increasing pallor, ecchymoses and renal failure develop. CNS symptoms such as convulsions and stupor may be present.

Hallmarks of the syndrome are:

1) acute hemolytic anemia with many fragmented and distorted red blood cells,

2) thrombocytopenia, and

3) renal picture similar to acute glomerulonephritis with hematuria, albuminuria, oliguria and elevated blood pressure.

In this disease the coagulation studies are usually normal because the clotting takes place predominantly in the kidney and is not usually disseminated. However, the thrombosis often leads to obstruction and renal failure. Prompt heparinization is therefore indicated if renal function is decreased in order to prevent further thrombosis of the kidney.[10] There is a 20 to 30 per cent mortality and a significant percentage go on to a picture of chronic glomerulonephritis with hypertension.

Table 6 presents the data on a one and one-half year old boy with a typical picture of the hemolytic uremic syndrome. He presented with bloody diarrhea, a rapid drop in hemoglobin, fragmented red cells on the peripheral blood smear, thrombocytopenia and renal failure. The course was progessively downhill but improvement in many parameters followed shortly after heparinization was instituted. The heparin was continued for one week and he continued to do well and had no further evidence of renal disease.

GIANT HEMANGIOMAS Association of thrombocytopenia with large hemangiomas (Kasabach-Merritt Syndrome) is well known but only recently has it been recognized that the thrombocytopenia may be secondary to intravascular coagulation occurring within the hemangioma and that other coagulation factors may be depressed as well.

We recently managed a 3-month-old infant with large hemangiomas over both cheeks and over the anterior mediastinum.[11] The infant had evidence of intravascular coagulation (thrombocytopenia, low fibrinogen, prolonged prothrombin time, prolonged partial thromboplastin time) but no significant bleeding other than from fingerprick sites. We were hesitant to heparinize the infant for several reasons: 1) it might be necessary to continue heparinization over a long period of time until the he-

TABLE 6

	1	2	3	4	5	6	7
Heparin							
Urine Output	15	150	302	370	350	481	317
BUN	72	70		67	59		38
Platlets	25,000	50,000	133,000		250,000		345,000
Hb	T 6.7			T 5.0	10		8.9
Urine	4+Prot. RBC's			1+Prot RBC's		1+Prot Few RBC's	

HEMOLYTIC UREMIC SYN.

mangiomas could be reduced in size, 2) the patient did not have clinically significant bleeding, and 3) the potential mechanical difficulties of frequent clotting time monitoring in a small infant. It should be emphasized that if the patient did have significant bleeding, heparinization would have been carried out.

In thinking about alternate methods of management we wondered if these circumstances did not deviate somewhat from our usual concept of disseminated intravascular coagulation. When the autopsied cases of giant hemangiomas were reviewed from the literature, there was never any thrombi present other than in the hemangioma. This then appeared to be localized intravascular coagulation rather than disseminated. Fresh plasma or blood should never be given to patients with disseminated intravascular coagulation without prior heparinization. If the patient is not heparinized, the clotting factors supplied in the infused plasma or blood will only result in more thrombi in vital organs and can lead to death. However, when the clotting is localized to a hemangioma the patient would not be at risk from widespread thrombosis when plasma or blood is given.

Fresh frozen plasma (Table 7) was carefully infused and there was prompt improvement in the clotting studies and the patient had no clinical bleeding. The hemangiomas were eventually reduced in size with repeated steroid

TABLE 7

Coagulation studies

	Normal	Day 2	5	6	7	9	16
Plasma clotting time (min)	1.5–2.75	3	6	Trans-	2.15	2	3
Prothrombin, one-stage (sec) ...	12–15	20.5	40.2	fusion	17	20.9	16.9
Prothrombin, two-stage (%) ...	100	26	24	of	37	38	33
Thrombin time (sec)	9–13	15.4	∞	100 cm³	12.4	17.4	11.0
Partial thromboplastin time (sec)	50–80	300	∞	plasma	80	∞	104
Fibrinogen (mg%)	250–300	92	71		147	134	142
Fibrinolysis (plasma clot) (%) ..	0 (24 h)	95	–		0	–	0
Euglobulin clot lysis (min/U) ...	(0)	50/0.60	70/0.45		120/0.25	–	neg.
Platelets (cells/mm³)	200 000–400 000	9000	22 000		56 000	100 000	215 000

GIANT HEMANGIOMA

and radiation therapy over a nine month period. The child is alive and well with no evidence of hemangiomas two years following initial treatment.

CONGENITAL HEART DISEASE Disturbances of coagulation are frequently present in children with cyanotic heart disease. It was previoulsy felt that the abnormalities might be due to intravascular coagulation. However, subsequent evaluations have not supported this suggestion, but there appears to be a good correlation between the degree of polycythemia and the coagulation abnormalities.[12] One explanation offered for this is that the coagulation abnormalities could be due to impaired liver function secondary to hypoxia and venous stasis. In some patients phlebotomy to decrease the hematocrit has resulted in return to normal of the abnormal clotting studies. Thus, intravascular coagulation is probably very uncommon in these patients and only when absolute incontrovertible evidence of disseminated intravascular coagulation is present should heparinization be considered in children with cyanotic heart disease.

It is important to remember the dilutional factor of the anticoagulant in these polycythemic patients. In one of our patients the anticoagulant used was in a ratio of 1 cc. to 10 cc. of blood. This is based, however, on normal blood with a hematocrit of 30 to 40 or plasma volume of 60 to 70 cc. When the hematocrit is approximately 70 and the plasma volume only 30 cc. there was an excess of anticoagulant resulting in all our coagulation studies being abnormal. The anticoagulant is needed to anticoagulate the plasma and not the red cell volume and the ratio should be changed accordingly.

DIAGNOSIS

The typical coagulation abnormalities in disseminated intravascular coagulation include decreased levels of prothrombin, fibrinogen factors V and VIII and thrombocytopenia. The factor assays often are time consuming and often not available in many hospitals so a diagnosis often will have to be based on screening tests. The four most valuable tests for presence of disseminated intravascular coagulation are platelet count, prothrombin time, partial thromboplastin time and fibrinogen level. If these are all significantly abnormal in a patient with a disease known to be associated with disseminated intravascular coagulation the diagnosis is reasonably secure.

Making the diagnosis in the newborn is a little more complicated in that disseminated intravascular coagulation could be confused with hemorrhagic disease of the newborn secondary to vitamin K deficiency. In hemorrhagic disease of the newborn the prothrombin time and partial thromboplastin time are both prolonged but can be differentiated from disseminated intravascular coagulation by the normal platelet count and normal fibrinogen and a history of not receiving vitamin K. It should also be remembered that the prothrombin time and partial thromboplastin time may be mildly prolonged in normal newborn infants.[4]

A patient with an infection or a malignancy may have disseminated intravascular coagulation and have a normal fibrinogen level and a normal factor VIII level.[5] This is explained by a rise above normal of fibrinogen and factor VIII in response to inflammation. A certain amount may be consumed in clotting and the level when assayed may then still be within normal limits. The time when the clotting studies are drawn have to be considered in relation to the duration of the intravascular coagulation process. If they are taken very early it may be prior to the point where consumption has taken place and the results could be normal. When taken at the midpoint in the intravascular coagulation process the clotting studies usually show the classical findings. However, if clotting studies are taken late the coagulation factors may return to normal or in many instances may be above normal as there is often a rebound effect after intravascular coagulation.

I previously had mentioned that when a clot forms in a blood vessel local fibrinolysins are activated to dissolve the clot. Ocasionally in adults the fibrinolysis may be primary and not secondary to disseminated intravascular coagulation and it may be difficult to distinguish it from disseminated intravascular coagulation. If primary fibrinolysis is present epsilon aminocaproic acid (AMICAR) is given to block the activation of fibrinolysins. This occurs so rarely in children that I do not believe it worthwhile to do more than mention it to distinguish it from intravascular coagulation.

TREATMENT

Since disseminated intravascular coagulation occurs as a complication of another disease process, treatment of the primary disease is obviously important. In some conditions treatment of the basic disease, thereby eliminating the triggering mechanism, may be all that is necessary. Unfortunately, however, this is more the exception rather than the rule.

Once a diagnosis of disseminated intravascular coagulation is made, a decision has to be made about heparinization and a number of aspects have to be considered—

1) The possible duration of heparinization has to be considered, as in large hemangiomas where heparin might be required until the size of the mass can be decreased.

2) Is the disseminated intravascular coagulation the cause of symptoms from thrombosis or is significant bleeding present? Either of these would be an indication for heparin.

3) Is the disseminated intravascular coagulation mild and reflected only in coagulation test abnormalities and does it appear to be hurting the patient in any way? Heparinization might not be necessary.

4) Is there a contraindication present such as an intracranial bleeding secondary to the consumption or perhaps bleeding from a stress ulcer in a seriously ill patient? Heparinization in these instances would be most hazardous.

If heparinization is indicated, 100 units/kg I.V. every four hours is started. A three tube clotting time is done 3 hours after injection and is maintained between 20 and 30 minutes. An initial prolonged clotting time is not a contraindication to anticoagulation. The dose of heparin required is quite variable from patient to patient and the clotting time is used as a guide even though it is a relatively crude test. One can give the same dose continuously aiming at 25 units/kg/hr rather than injections every four hours. If the clotting time becomes markedly prolonged and no bleeding occurs, temporarily withhold the next dose until the clotting time comes down to the desired range. The half life of heparin is approximately 60 minutes so excessive heparinization rapidly corrects itself. If severe bleeding does occur when the clotting time is excessively long the excess heparin can be neutralized with protamine sulfate.

How do you heparinize a patient with renal failure such as a hemolytic uremic syndrome? Heparin is metabolized in the liver but when given intravenously as much as 50 per cent may be excreted in the urine. Since our dose is monitored by the effect of heparin, renal failure is no problem. If it is not excreted the effect will persist and be reflected in prolongation of the clotting time and less heparin need be given or it can be given at longer intervals.

If bleeding continues after heparinization because the clotting factors have not returned to hemostatic levels, fresh frozen plasma or fresh whole blood, if the patient is anemic, may be given to supply the consumed clotting factors. If transfusions of blood or plasma are given prior to heparinization more consumption will often take place with more thrombi being formed and worsening of the clinical condition. Thus, plasma or transfusions can be given but only following heparinization. This might be indicated in disseminated intravascular coagulation in the newborn whose liver might not be able to replenish the coagulation factors as rapidly as an older child. Infants with intravascular coagulation and hepatic damage secondary to herpes virus or other virus would also benefit probably from plasma following the initial heparinization.

If a newborn has severe disseminated intravascular coagulation with an intracranial bleed one can compromise by doing an exchange transfusion with heparinized blood.[13] The amount of heparin in the blood should not worsen the intracranial hemorrhage and the exchanged blood will supply the depleted coagulation factors.

Heparinization should be continued until coagulation tests return to normal or the underlying disease has been adequately treated. In patients with normal livers the clotting factors, particularly factor VIII and fibrinogen will often return to normal levels or even above normal levels within 24 hours of heparinization. The platelet count often will return to normal after approximately 3 to 6 days.

It is important to remember that heparin does not dissolve preformed thrombi but merely prevents formation of new thrombi. Intramuscular injections should be avoided in heparinized patients. The primary hemostatic defense in heparinized patients are platelets and aspirin should not be given as it inter-

feres with platelet aggregation, increasing the bleeding tendency. Heparin comes in various concentrations per cc. and this should always be kept in mind when using this drug. Other anticoagulants such as vitamin K antagonists as dicoumarol are not effective in treating acute disseminated intravascular coagulation. Whereas it is always desirable to avoid umbilical vessel catheterization in a newborn, it is justified to use this vessel in heparinizing infants with disseminated intravascular coagulation. The infusion of heparin through the catheter will decrease the chance of a thrombosis resulting and the frequent samples for clotting time determination can be withdrawn through the catheter. A sample should be withdrawn initially to rinse out the catheter and discarded before drawing the sample for the clotting time.

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SUMMARY

The following points are provided in summary:

1) The concept that a number of different mechanisms may trigger intravascular clotting and may lead to thrombosis of vessels of vital organs or bleedng because the coagulation factors are used up.

2) The practical screening tests are platelet count, prothrombin time, partial thromboplastin time and fibrinogen level.

3) Not all documented cases of disseminated intravascular coagulation require heparinization.

4) When symptoms from thrombosis or bleeding are present the patient should be heparinized.

5) And lastly, but most importantly, my deep respect and admiration for one who has so graciously typified what is good and wonderful in pediatrics—Dr. Lee Forrest Hill.

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Editorials

ON SMALLPOX VACCINATION

Last month the IMS JOURNAL presented an article on the complications of smallpox vaccination. In the past few years there has been some lively concern in medical circles whether routine smallpox vaccination is warranted. On October 1, 1971, the U. S. Public Health Service Center for Disease Control issued recommendations on smallpox vaccination. Because of the rapidly declining incidence of smallpox in the world and with the reduced likelihood of its being imported in the United States, health officials are recommending discontinuation of compulsory measures related to smallpox vaccination. The consensus seems to be that routine smallpox vaccination is no longer indicated in this country. There has been no documented case of smallpox in the United States since 1949. Thus, the only way this disease could occur would be by importation.

In June 1971 only nine countries—Sudan, Ethiopia, Democratic Republic of the Congo, Uganda, Afghanistan, Pakistan, India, Nepal and Indonesia—reported smallpox. This decrease in number of countries reporting the disease greatly reduces the probability of travelers being exposed before entering the United States. U. S. Public Health Service statisticans estimate the importation probability into this country to be one person every 12 years. The risk that citizens of smallpox endemic countries have of being infected with smallpox in the two weeks prior to arrival in the United States in 1970 is approximately 20 per cent of the risk in 1960.

Commentary on the U. S. Public Health Service release by the Iowa State Department of Health indicates that Iowa has no state law requiring smallpox vaccination. The SDH recommends that health services personnel maintain a high level of immunity among their own groups, with revaccination recommended at 3-5 year intervals.

The American Academy of Pediatrics was represented on the U. S. Public Health Service Advisory Committee on Immunization Practices, and indicated there would be support for the recommendation to discontinue the routine and compulsory smallpox vaccination in this country. However, the Academy of Pediatrics will not release its own recommendations until after its October annual meeting.

A vaccination procedure so life-saving and so efficient in eliminating so dread a disease is not easily discarded. Complete immunization programs have been strongly encouraged and so very much has been gained from them. It is my impression that many complications of smallpox vaccination stem from improper screening of patients at the time of vaccination; i.e., not ascertaining the presence of skin lesions such as eczema in the individual and members of his family, the presence of pregnancy, and whether the one to be vaccinated is receiving corticosteroid therapy. Perhaps too often, with routine procedures, carelessness raises its ugly head. It is to be hoped that we do not rashly dismiss a proven form of protection which has saved so many from being victims of this historically-dreaded disease.—M.E.A.

For a discussion of the new recommendations on smallpox immunization issued by the U. S. Public Health Service, see the State Department of Health section on Page 655.

Editorials continued...

MONKEY BUSINESS

How would you respond if some day you awoke to find you were receiving a blood transfusion from a baboon? Do not become an alcoholic, or you may face this interesting experience. Hollander *et al** recently reported the successful treatment of hepatic coma in an alcoholic patient by use of human-baboon cross-circulation.

Previous experiments have demonstrated the feasibility of using expendable sub-human primates for temporary support of patients with fulminate hepatic coma. After ascertaining the baboon to be physically normal, having a normal chest X-ray, negative tuberculin test, normal liver and renal function, and no simian-B virus antibodies, the cross-circulation was continued over a period of 5½ hours. Before the cross-circulation procedure the baboon was made incapable of reacting immunologically to the patient by washout and replacement of its blood by human blood. The patient survived and demonstrated no signs of hepatic encephalopathy, no immunologic sequelae, and no marked biochemical abnormalities three months later. (The baboon developed pulmonary edema.)

* Hollander, D., *et al*, Human-baboon cross-circulation for treatment of hepatic coma. J.A.M.A., **218**:67-71, Oct. 4, 1971.

The rationale of such treatment is based on the known fact that the liver will regenerate itself rapidly if given metabolic support over a short period of time. In this incident the expendable baboon provided needed support for the patient's liver during the time of the cross-circulation. The issue was clouded to some extent in this case because the patient also received a 13-unit whole blood exchange transfusion 12 hours after the cross-circulation. This exchange transfusion resulted in initial modest correction of liver function tests only, so perhaps contributed little directly or indirectly to the success of the cross-circulation.

It is gratifying that our sub-human friends can assist us in our hectic lives. Our knowledge of erythroblastosis was aided by Rhesus monkeys, the use of monkeys is well known in experimental studies on tranquilizer drugs, and, of course, the development of poliomyelitis vaccines entailed monkey tissue cultures. It reminds me of the fable of the brilliant monkey who had been taught to read by the zoo-keeper. Later, in his advanced reading, the monkey became familiar with the Holy Bible as well as Darwin's writings on evolution. Where upon the monkey was heard to exclaim, "Am I my keeper's brother?"—M.E.A.

THE THREAT OF PORNOGRAPHY

A recent press report on the subject of pornography in America quotes a research worker for the President's Commission on this subject. The staff member asserted that this nation has attained the questionable distinction where: ". . . openly sold and shown pornography has become as explicit as anything in Denmark." Pornography is estimated to be probably a $200-million-a-year industry, with other unofficial estimates carrying it up as high as a billion dollars.

The pages of advertisements in the daily papers beckoning the public to attend rated pornographic movies or to browse in "adult book-stores" where pornographic books and magazines are on display and obscene peep-shows are available, are disgusting and revolting. Surely the press has an obligation to the community to discourage adverse influences and to encourage beneficial forces. The only possible purpose of the pornography industry and those who promote it is the almighty dollar, and they show a complete indifference to its impact on our society.

Of all the things this country does not need it is an industry which contributes to the deterioration of the morals and ethics of its citizens, particularly its youth. In this era the process of growing up is difficult enough at best and certainly promiscuous pornography does not contribute to wholesome development. By denying admission to those under 18 the industry isn't fooling anyone and grade school youngsters use the lingo, "rated R, XXX, and parental guidance."

The rejection today of mature and conventional standards of morality is a great concern at all levels of society. Sexual promiscuity, illegitimacy, pregnancy at the time of marriage, the tremendous increase in legalized abortion, the nationwide epidemic of gonorrhea and syphilis, the high divorce rate and the disruption of the family are problems of great magnitude. Pornography and obscenity on the stage, the screen and on the printed page all contribute to these social problems.

In August of this year the President declared a wage-price freeze in an effort to interrupt the inflationary spiral and to improve the economy. The success of this program depends upon the cooperation of the public and unquestionably calls for sacrifice on the part of many citizens for the good of the nation and the public in general. Recent reports from Washington indicate that continuing sacrifices will be necessary.

If such a drastic step is necessary to stabilize the economy of the nation, it would appear that equally drastic measures should be undertaken to reduce the adverse forces which contribute to the deterioration of the morals and the ethics of our society. A nationwide moratorium or a universal boycott forcefully promoted by concerned people and organizations could put the pornography industry out of business in a hurry. Such a project deserves a concerted effort by the American public.—DENNIS H. KELLY, M.D.

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Patient Consideration

The patient is *the* important subject, and the medical assistant is an important link between the physician and the patient. Public relations requires training and aptitude. Each patient should be treated as an individual with courtesy. Your tone of voice should be warm, cordial and respectful. People who are ill especially appreciate a sincere gesture. If a feeling of confidence is established in the outer office, the physician will have an easier time.

APPOINTMENTS

If you run your office by appointment, certain objectives should be kept in mind. Efficient scheduling of appointments is essential. The doctor should see as many patients as possible but not be rushed. The appointment schedule should be adapted to the type of practice. You should know how much office time the doctor spends seeing patients and how much time he wants allotted for complete examinations, followup calls, treatments, etc. Stick to this schedule and allow appropriate time for the various examinations and treatments. *Avoid* double booking, this results in a room full of patients who see the doctor on a "first come, first served basis." If the doctor receives an emergency call, be sure to explain any delay so if patients cannot wait, they can be rescheduled.

When a patient makes an appointment by phone, note the spelling of his full name, address and phone number. You should also inquire as to the patient's trouble and who referred him. Repeat the appointment time so there will be no misunderstanding.

Use appointment cards so that brief instructions can be given to the patient.

It is impossible to keep appointments always on schedule but remember the patient has a schedule too, and wherever possible, the office schedule should be maintained. Emergencies upset the schedule, but if we strive to see patients as near appointment time as possible, this makes for better patient relationship.

REGISTRATION

When greeting a patient, mention his name, if possible. The appointment book will indicate who he is.

In multipractice. particularly, there are tools which make patient registration more efficient. Identification cards with account and record numbers (in this computer age) are a great help and eliminate the need for the patient to repeat the spelling of his name each time he comes to the office. If addresses are included, it will make the patient more conscious of reporting address changes.

A registration form (preferably in triplicate with self-carbons) may be used. This is stamped with the plate or typed with the card as reference when the patient arrives. This form should contain the itemized bill of patient's visit. It may also contain a diagnostic code with reference to his medical treatment. The registration forms should be numbered in sequence with the third copy kept at the registration desk. The other two copies are given to the physician who will enter his charges. After completion, the original is given to the patient for insurance purposes and/or receipt and the second copy is used for accounting purposes.

TELEPHONE MANNERS

Telephone contacts are vital. Answer all calls promptly. Identify yourself. If you are busy with a call and another line signals a call, quickly answer and courteously ask the caller to wait, state you will be with him as soon as possible, place the call on hold, and go on with your first call. Speak clearly with the mouthpiece about one inch from your lips. Use a well-modulated voice. Keep a pencil and pad handy. Listen attentively and do not make the caller repeat because of your inattention. When the conversation is completed, say, "Thank you for calling, Mrs. Jones," or, "Goodby, Mrs. Jones." Let the caller hang up first.

QUALIFICATIONS

Consider further the personal qualifications and attributes of good medical assistants. Honesty, integrity, loyalty, unselfishness in service to others—these qualities are essential. They are traits that distinguish any responsible person. Our primary objective is better patient care; we cannot achieve this and think of ourselves first. We are entrusted with confidential information; we are a part of facilities where care of the sick is a first responsibility and sacred trust. We are co-workers of physicians who are devoted to noble ideals of service to humanity. When a person with these traits also possesses the qualities of persistency and accuracy, she definitely *belongs* in medical work.

Woman's Auxiliary News

Be Thankful for Busy Times

As we go to press this month, your President-elect Bunny Wicks and I are attending the leadership conference in the Windy City. It is great once again to share ideas and projects with other state auxiliaries and national board members. The national officers presented miniworkshops on health education, health manpower, international health activities and volunteer health services. New information was presented including resources available in various publications.

Richard E. Byrd, Ph.D., a behavioral science advisor, spoke at several sessions on group motivation and group building—all of which was oriented to auxiliary activities.

Congressman Richard Fulton (D. Tenn.), a member of the House Ways and Means Committee, stressed the importance of the role women play in politics. He predicted there will be a national health insurance plan within the next 18 months. We should support the AMA's Medicredit bill because it will be good for the country.

During September I attended a District VI tea at the home of Mrs. W. I. Evans in Grinnell. Members-at-large were invited and encouraged to join our Auxiliary. This meeting was planned by Mrs. Sokol, District VI Councilor. Mrs. Martin, District IV Councilor, also invited members-at-large to a luncheon in Cherokee. State Senator Charlene Conklin, a Black Hawk County Auxiliary member, spoke on medically oriented legislation. Your state board was represented at this meeting by President-elect Bunny Wicks, First Vice-President Fran Hayden, Executive Secretary Hazel Lammey and myself.

The Iowa Medical Auxiliary was asked to be present at a meeting of the Committee on Alcoholism of the Iowa Medical Society. The committee discussed various preventive measures and their application to the use of alcohol by young people.

As we enter this Thanksgiving Season, will you share a thought with me? Let us be thankful that we have a way, as Auxiliary members, to improve the health care of those who are less fortunate than we are. We, as doctors' wives, must be educators. We educate by setting examples, as well as by sponsoring and directing our many health oriented programs. Let us also not forget to be thankful for each other. Have a Happy Thanksgiving.

RUTH TENNEY,
President

FORGET . . .

Forget the slander you have heard,
Forget the hasty unkind word,
Forget the quarrel, forget the cause,
Forget the whole affair because
Forgetting is the only way!

Forget the trials which you have had,
Forget the weather, if it's bad,
Forget the gray strands in your hair,
Forget you're not a millionaire,
Forget the coffee when it's cold,
Forget the knock, forget to scold,
Forget it, if you have the blues,

BUT DON'T FORGET TO PAY YOUR DUES!

Urges Involvement

It is important for wives of physicians to become familiar with all medical legislation. So said State Senator Charlene Conklin at a recent meeting of the District IV members of the Woman's Auxiliary. This luncheon meeting in Cherokee was attended by 25 members.

Mrs. Conklin, wife of a physician, urged her listeners to get to know their legislators on a one-to-one basis and to seek information on bills in the General Assembly involving medicine. Mrs. Conklin was elected to the House of Representatives in 1966 and to the Senate in 1968.

In attendance at the meeting were physicians' wives from Cherokee, Aurelia, Sioux City, Boone, Independence, Des Moines, Spirit Lake and Onawa.

Since 1960 the physician population in the U. S. has grown 28 per cent while the general population has increased 12 per cent, which gives the lie to the old canard about the AMA wanting to restrict the number of physicians.

Putting Together a POSITIVE PROGRAM FOR HEALTH

Richard S. Wilbur, M.D., now Assistant Secretary of Defense for Health and Environment (on leave of absence from his post as AMA's Deputy Executive Vice President), made some cogent suggestions in a speech at the AMA-AMPAC Workshop in Washington, D. C., last Spring. His remarks deserve our consideration for the coming years.

Dr. Wilbur said we need a comprehensive, clear statement of the problems to be solved, and how the medical profession, the health care industry, the government and the people of the country can work to solve them.

He declared, "the combined teams of the AMA, the state and local medical societies and their auxiliaries could . . . introduce the program to the American public and show them that their medical profession really is the leader in getting the job done when the job involves medical and health care."

Such a program should attack all of the major problems of health and health care in our country, he stressed. The list of problems would include health manpower, the financing of medical schools, the rising cost of medical care, financing mechanisms (the AMA has already presented its answer—Medicredit), drug abuse and alcoholism, pollution, health care of the poor (and social problems which bring about health problems), maintenance of quality of health care (peer review, continuing medical education), and modernization of health care and health care facilities.

A complex job lies ahead of the AMA. Its Auxiliary should be ready and willing to assist in any way possible.

The public is being presented with an overly simplistic and massively expensive program with the extravagant claim that changing the manner in which a physician is compensated will somehow improve the nation's health; that drastically rearranging health delivery will make it better; and that creating a huge federal bureaucracy is a solution to our health care problems.

As Mrs. Robert F. Beckley, national president-elect, points out: "The AMA's positive approach puts it far ahead of other organizations, agencies or government itself. AMA now becomes the one making positive proposals, seeking cooperation of all who want to help solve the problems. AMA is establishing priorities and outlining a lot of hard work for all medical societies and their auxiliaries for the next several years. As a team we can do the job!"

Are You a Good LISTENER?

(These words of wisdom about the fine art of listening were presented by Mrs. John Chenault at a small leadership meeting during the national convention in June.)

The three elements of effective communication are: speaking, thinking and listening.

When we think or speak we usually concentrate, but when we listen we relax and allow thoughts, both relevant and irrevelant, to flood over the message being received. This inability to listen effectively is probably the major barrier to human communication.

Why is it important to improve listening skill? Good listening adds to our knowledge and information and helps us make better decisions. It leads to better work and cooperation from others. Effective listening stimulates the speaker and helps gain his respect and leads to greater enjoyment of what we hear.

How can the individual improve listening skill? He can: stop talking; empathize with the other person; ask questions; not give up too soon; concentrate on what is being said; look at the other person; smile and grunt appropriately (re-act); leave emotions behind; control anger; get rid of distractions; get the main points; share responsibility for communication; react to ideas, not persons; refrain from arguing mentally; use the difference in rate between listening and speaking; listen for what is not said; listen for HOW something is said; refuse to antagonize the speaker; listen for his personality; avoid jumping to assumptions; avoid classifying the speaker; avoid hasty judgments; recognize prejudice; and identify the type of reasoning.

And when it's your turn to speak, follow these basic rules:

Don't unload on your listeners;
Think of your listeners as you speak;
Look at your listeners;
Detect what interests them;
Don't make your listeners feel inferior;
Keep your listener's thoughts moving along with yours;
Use humor strategically;
Never be angry at your listeners;
Develop an endurable, non-monotonous manner of speech;
Eliminate distressing mannerisms, and
Leave space for your listeners to think.

. . . In DEFENSE of MEDICINE

One rarely sees the cause of medicine so expertly defended by someone outside the medical field as did Harry Schwartz in *Health Care in America: A Heretical Diagnosis.*

The thoughtful Schwartz article appeared in the SATURDAY REVIEW OF LITERATURE (August 14) without the fanfare or showy display often used by medicine's critics. "The past few years have seen a barrage of articles, books, television programs, and other investigations of the weaknesses and inadequacies of the medical system," states the author. And further, " 'Don't get sick in America,' the nation has been told, as though there were some place where it was good to have cancer or multiple sclerosis or schizophrenia."

If you are looking for counter-arguments for accusations hurled at the medical profession in recent years you will find plenty of good ones in Mr. Schwarz's article. Covered are such subjects as the misuse of statistics, the doctor shortage, medical costs, adequate care and his view of the revolutionary changes in medicine under consideration.

The author contends, "the nation's real problems of medical care can best be met by measures that focus on particular trouble areas, rather than by a violent transformation of the entire complex medical system that would affect equally all parts, those working well and those working poorly."

In speaking of making changes within the system, Harry Schwartz believes, "different people have different tastes and different needs. Those who want to use prepaid groups should be permitted to do so; those who want to go to a physician and pay him each time should be free to do so, too. The result may not seem to be as neat on an organization chart as a uniform national system, and it may have seeming inefficiencies and duplications. But the right of choice for doctors and patients alike is worth such costs—at least in a really humane society."

The author is astonished, in an era of disenchantment with big government, that so many reformers desire to bureaucratize American medicine. He states in his final paragraph: "One would have thought that the postal and public school systems would have taught them long ago that nationalization does not mean efficiency, and that the telephone system would have taught them that even a private integrated system can develop serious flaws. Based on the record of the past, we have every reason to suspect that if the revolutionary proposals for transforming American medicine are adopted and implemented, medical care in this country will cost more while providing less satisfaction and poorer treatment for millions."

Harry Schwartz works for THE NEW YORK TIMES and is presently writing a book on health care in the United States. Many of us will watch for that book with great interest.

HELP WANTED

(From County Publicity Chairmen or Presidents!)

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As you perform those projects that transform your communities into better places in which to live, remember to share your efforts and successes with others around the state. This can best be accomplished by making certain there are a few lines about your auxiliary in every issue of the Medical Auxiliary News. Readers have said they are truly interested in what you are doing.

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Personals

At a recent meeting of the Iowa Urological Society, **Dr. Rubin H. Flocks,** professor and head of urology at The U. of I. College of Medicine, presented to The U. of I. a portrait of the late Dr. Nathaniel G. Alcock, painted by Mrs. Cloy Kent, of Iowa City. Dr. Alcock was professor and head of urology at The U. of I. College of Medicine from 1915 to 1949. In honor of Dr. Alcock, who died in 1953, the entire scientific portion of the meeting was devoted to various aspects of prostatic disease.

Dr. Lloyd L. Spencer, of Cedar Falls, has been named medical director of the Black Hawk County Mental Health Center. Dr. Spencer is a graduate of the University of Illinois College of Medicine. He completed his psychiatric residency at the Psychopathic Hospital in Iowa City.

Dr. Morgan J. Foster, a Cedar Rapids pediatrician, has retired from the active practice of medicine. In 1922 when Dr. Foster received the M.D. degree at The U. of I. College of Medicine, the Department of Pediatrics was in its infancy. Dr. Foster served part of his pediatric residency at Children's Hospital in Iowa City, later was chief pediatric resident at City Hospital in Cleveland. After a short postgraduate study in Chicago, Dr. Foster began his Cedar Rapids practice in 1924.

Dr. William B. Bean, Sir William Osler Professor of Medicine at The U. of I. College of Medicine, recently visited medical centers in Dublin, Ireland; London, England; and Edinburgh, Scotland. In Dublin, Dr. Bean presented a paper at a joint meeting of the American College of Physicians, the Royal College of Physicians of Ireland, the Royal College of Physicians of Scotland and the Royal College of Physicians of England. Dr. Bean's presentation described medical education in Dublin in the period 1828-1832, and was illustrated by diplomas, certificates of attendance, testimonial letters, certificates of proficiency, and bill of indenture of Dr. Bean's great, great, great grandfather, John Holmes. Holmes was a student of medicine in Dublin at the time of the so-called "Golden Age" of Dublin medicine.

Dr. Walter M. Block, a Cedar Rapids pediatrician and medical director of the community's Child Evaluation Clinic, spoke on "Cerebral Dysfunctions—Clarification, Delineation and Classification," at the 13th International Congress of Pediatrics in Vienna, Austria, in September.

Dr. William W. Ireland, an Ottumwa radiologist, has been appointed to the Ottumwa Heights College Board of Trustees.

Dr. Richard M. Caplan, of Iowa City, assistant dean of continuing medical education at The U. of I. College of Medicine, **Dr. Howard G. Ellis,** of Des Moines, chairman of the IMS Committee on Education and Hospitals, and **Dr. Walt G. Chappell,** of Iowa City, U. of I. coordinator of medical instructional services, participated recently in a retreat-workshop on Continuing Medical Education in Community Hospitals in Iowa at Lake Okoboji.

Dr. Frank R. Richmond, Sr., of Fort Madison, recently started his 51st year of medical practice and has no plans for retirement. Dr. Richmond is associated with his son, **Dr. Frank R. Richmond, Jr.,** and his brother, **Dr. A. C. Richmond,** at the Richmond Clinic in Fort Madison. A 1921 graduate of the University of Illinois College of Medicine, he served his internship and residency at Lying-In and Cook County Hospitals in Chicago.

The following Iowa physicians have been named charter members of the American Board of Family Practice—**Drs. Edward Ebinger** and **Philip D. McIntosh,** of Ottumwa; **Dr. Phillip G. Couchman,** of Mt. Pleasant; **Dr. Charles V. Edwards, Jr.,** of Council Bluffs; **Drs. John L. Bailey** and **Aaron P. Randolph,** of Anamosa; **Dr. Larry Boeke,** of West

Union; **Dr. H. R. Light,** of Grinnell; **Dr. D. F. Rodawig, Jr.,** of Spirit Lake; **Dr. K. A. Garber,** of Corydon; **Dr. Charles D. Stinard,** of Glenwood; **Dr. E. E. Linder,** of Boone; **Dr. Harold Moessner,** of Amana; **Dr. Robert A. Manderscheid** of Boone; and **Dr. William A. Seidler, Jr.,** of Jamaica.

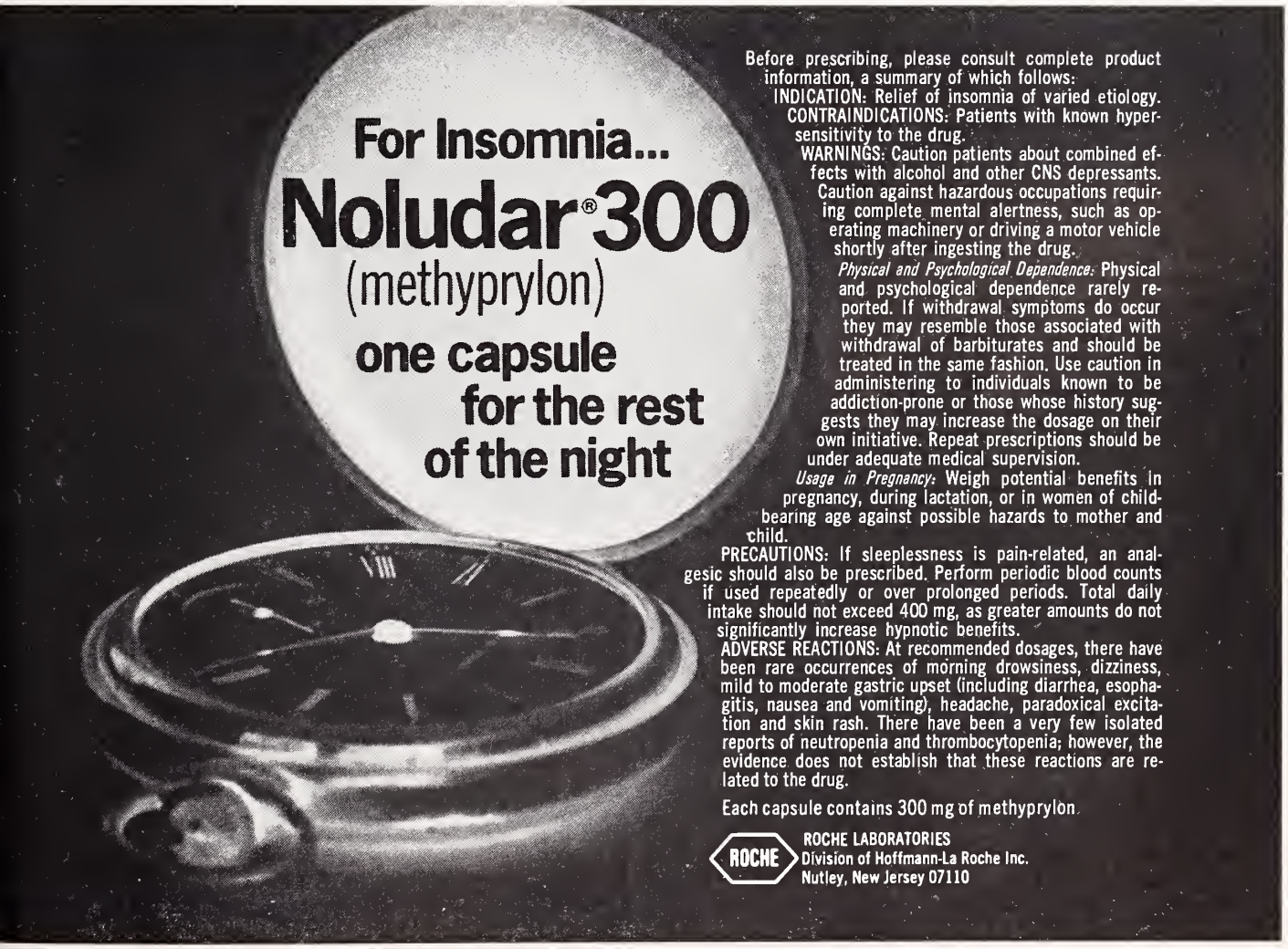
Dr. Robert J. Lynn, a former Hampton surgeon, has joined **Drs. John J. Shurts** and **Gary P. Hayes** in the practice of medicine at the Eldora Medical Center. Dr. Lynn had been associated with the Hampton Clinic since 1966. A 1947 graduate of the University of Nebraska College of Medicine, he served his internship at Clarkson Hospital in Omaha and St. Joseph Mercy Hospital in Sioux City.

Dr. R. B. Widmer, of Winfield, has been appointed to the faculty of the Department of Family Practice at The U. of I. College of Medicine. Dr. Widmer will spend one day a week in Iowa City and will continue his Winfield practice.

Dr. L. Robert Martin, director of medical education at St. Luke's and Mercy Hospitals in Cedar Rapids, was guest speaker at a recent meeting of the Linn County Chapter of the American Cancer Society. Dr. Martin, immediate past-president of the American Cancer Society's California Division, spoke on "The American Cancer Society Today."

The Mental Health Institute in Independence recently hosted a seminar for physicians in northeast Iowa. Topic for the meeting was "Drug Abuse and Alcoholism." **Dr. Robert M. Bittle,** assistant professor of psychiatry at The U. of I. College of Medicine, was the guest speaker.

Dr. W. Gene Garrett, a Mason City pediatrician, was the guest speaker at a recent meeting of the Wright County Medical Society. Dr. Garrett spoke on the latest immunization recommendations for children.



Dr. Eunice Chou, a Marshalltown pediatrician, was the guest speaker at a recent meeting of the Marshalltown Area Community Hospital Auxiliary.

Dr. Robert M. Carney, who has practiced medicine in Brooklyn since 1959, has relocated his office in Grinnell. A graduate of Meharry Medical College in Nashville, Tennessee, Dr. Carney served his internship at Mercy Hospital in Cedar Rapids. Upon completion of his internship, he practiced in his home town of Steubenville, Ohio, and then moved to Brooklyn.

Dr. T. K. Leonard, formerly of Madrid, has leased his office and equipment to **Dr. S. S. Humsey.** For the past seven years, Dr. Humsey has been employed at the State Hospital in Woodward. He is a former medical superintendent at the State School in Nampa, Idaho.

Dr. Kenneth Thompson, of Oakland, recently completed 50 years of medical service to the Oakland community. Dr. Thompson graduated from the University of Nebraska School of Medicine in 1918, and began his practice in Oakland in 1921. Though he has cut down on his practice some, Dr. Thompson continues to see about 20 patients a day and has no plans for retirement.

Dr. George Fieselmann, of Spencer, has been appointed by **Governor Robert D. Ray** to the Iowa Commission on Alcoholism. Dr. Fieselmann will serve a four-year term. He is currently a member of the Medical Subcommittee of the Northwest Iowa Alcoholism Treatment Unit's Advisory Board and served this summer as a faculty member for the Buena Vista College Summer Studies on Alcoholism at Storm Lake.

Dr. Sinesio Misol has joined Orthopedic Associates in Des Moines. Dr. Misol was graduated from the Santiago University Medical School, Santiago, Spain, in 1964. Dr. Misol interned at Mercy Hospital in Des Moines and served his residency in orthopedic surgery at The U. of I. College of Medicine. He was certified by the American Board of Orthopedic Surgery in March, 1971.

Dr. Howard B. Latourette, professor of radiology at The U. of I. College of Medicine, participated in a recent Clergy Conference sponsored by the American Cancer Society and held at Iowa State University in Ames. Dr. Latourette also spoke recently at the annual meeting of the Des Moines County Chapter of the ACS.

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When weight loss is unsatisfactory the recommended dosage should not be increased in an attempt to obtain increased anorexigenic effect; discontinue the drug. Tolerance to the anorectic effect may develop. Drowsiness or stimulation may occur and may impair ability to engage in potentially hazardous activities such as operating machinery, driving a motor vehicle, or performing tasks requiring precision work or critical judgment. Therefore, such patients should be cautioned accordingly. Caution must be exercised if Pre-Sate (chlorphentermine hydrochloride) is used concomitantly with other central nervous system stimulants. There have been reports of pulmonary hypertension in patients who received related drugs.

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Central Nervous System: When CNS side effects occur, they are most often manifested as drowsiness or sedation or overstimulation and restlessness. Insomnia, dizziness, headache, euphoria, dysphoria, and tremor may also occur. Psychotic episodes, although rare, have been noted even at recommended doses. **Cardiovascular:** tachycardia, palpitation, elevation of blood pressure. **Gastrointestinal:** nausea and vomiting, diarrhea, unpleasant taste, constipation. **Endocrine:** changes in libido, impotence. **Autonomic:** dryness of mouth, sweating, mydriasis. **Allergic:** urticaria. **Genitourinary:** diuresis and, rarely, difficulty in initiating micturition. **Others:** Paresthesias, sural spasms.

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Management: Management of acute intoxication with sympathomimetic amines is largely symptomatic and supportive and often includes sedation with a barbiturate. If hypertension is marked, the use of a nitrate or rapidly acting alpha-receptor blocking agent should be considered. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendations in this regard.

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Dr. Roy Overton, of West Des Moines, shot what may be a record trophy black bear, a 600-pounder, while on a recent fishing and bear hunting trip in Canada. Dr. Overton took the animal to a freezer service in Vermillion Bay and was told by the owner that in 20 years he had never seen a larger bear.

Dr. Arthur Pedersen, of Council Bluffs, has accepted a position in the emergency room at Gaston Memorial Hospital in Gastonia, North Carolina, beginning November 1. Dr. Pedersen has served the Council Bluffs and southwest Iowa area as a general practitioner for 23 years. Dr. Pedersen received the M.D. degree at the University of Nebraska School of Medicine in 1947.

Dr. Robert T. Guthrie, associate professor in the Department of Radiology at The U. of I. College of Medicine, discussed the medical aspects of cancer at a recent Clergy Conference for 12 north central Iowa counties. The meeting was sponsored by the Iowa Division of the American Cancer Society.

Dr. W. S. Markham, of Harlan, has been elected to the Harlan School Board. A graduate of the Creighton University School of Medicine in Omaha, Dr. Markham has practiced medicine in Harlan since 1956.

The following Iowa physicians have been named charter members of the American Board of Family Practice—**Dr. Paul F. Brown,** of Maquoketa; **Dr. G. E. Larson,** of Elkhorn; **Drs. James Coffey, Robert Cozine** and **Carlyle Moore,** of Emmetsburg; **Dr. J. H. Thomas,** of Sibley; and **Dr. Carl V. Griesy,** of Rock Rapids.

Dr. Stuart Sybesma has joined **Drs. Dorothy Forsythe, Frank Forsythe,** and **L. D. Norris** in the practice of medicine at the Jasper County Medical Center in Newton. Dr. Sybesma received the M.D. degree at The U. of I. College of Medicine in 1968. After serving his internship at Los Angeles County Harbor General Hospital, Dr. Sybesma completed a two-year family practice residency at Ventura County General Hospital in California.

Dr. J. E. Sinning, Sr., has closed his Marshalltown office and has accepted a position in the Student Health Center at Arizona State University, Tempe, Arizona. From 1933 until World War II, Dr. Sinning practiced in Melbourne. Upon his re-

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turn from military service, he began his practice of medicine in Marshalltown.

At the October meeting of the Johnson County Medical Society, **Dr. James A. Clifton**, professor and head of internal medicine at The U. of I. College of Medicine, discussed "The Revolution in Departments of Medicine: Duties, Dollars and Dilemmas."

Dr. Homer Skinner, a Carroll surgeon, recently starred in the play "Everybody Loves Opal," produced by the Carroll Community Theater. Prior to his appearance in the role of Solomon Bozo, Dr. Skinner's stage experience was limited to one word in a Latin play. The local audience had high praise for Dr. Skinner's performance.

Dr. Richard N. Stauffer, assistant professor of orthopedic surgery at The U. of I. College of Medicine, is one of five orthopedic surgeons in the nation named to receive a Carl Berg Traveling Fellowship. Administered by the Orthopaedic Research and Education Foundation, the awards are granted on the basis of past accomplishments and on the promise of future leadership in the field of orthopedic surgery. Dr. Stauffer will spend seven weeks studying at centers for hip surgery and biochemics laboratories in Great Britain and Europe. Dr. Stauffer joined The U. of I. College of Medicine faculty last year.

Dr. James E. Dolan, a West Des Moines physician, has moved into his new office located at 1226 Grand Avenue in West Des Moines.

Dr. Thomas R. Tephly has been appointed professor of pharmacology and director of the Center for Research in Biochemical Pharmacology and Toxicology at The U. of I. College of Medicine. A former associate professor of pharmacology at the University of Michigan, Dr. Tephly received the M.D. degree at the University of Minnesota School of Medicine.

Dr. Larry R. Severeid, formerly of Iowa City, has become associated with the Gundersen Clinic, Ltd. and La Crosse Lutheran Hospital in La Crosse, Wisconsin. Dr. Severeid received the M.D. degree at The U. of I. College of Medicine in 1963, and served his internship at Los Angeles County General Hospital in California. Following completion of his military obligation, Dr. Severeid returned to The U. of I. College of Medicine where he served a residency in general surgery and otolaryngology and maxillofacial surgery.

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Dr. Alson E. Braley, professor emeritus and former head of The U. of I. Department of Ophthalmology, assumed the presidency of the Eye Bank Association of America in September. Dr. Braley, who is now in the private practice of ophthalmology in Iowa City, served this past year as president-elect of the group and was installed at the organization's annual meeting in Las Vegas, Nevada.

Dr. Byron Peterson, a Keokuk radiologist, spoke at the recent annual Van Buren County American Cancer Society meeting.

Dr. Richard A. Myers, of Independence, was recently re-elected to a three-year term on the Board of Directors of the Northeast Iowa Health Planning Council.

The following U. of I. College of Medicine faculty members were recent participants in a seminar on respiratory failure at Iowa City—**Dr. George N. Bedell,** professor of internal medicine; **Dr. Donald Zavala,** assistant professor of medicine; **Dr. Robert H. Richardson,** instructor in pulmonary disease; **Dr. John E. Kasik,** associate professor of internal medicine; and **Dr. Prashant K. Mukerjee,** instructor in pulmonary disease. The seminar was sponsored by the VA Hospital, the Department of Inhalation Therapy, pulmonary disease section of the Department of Internal Medicine, and the proposed Iowa Society of the American Association for Inhalation Therapy.

Dr. Clayton Clark, of Nashua, recently toured Europe and attended a series of medical clinics in Zurich, Vienna, Athens and Madrid.

Dr. E. A. Kjenaas, director of psychiatric training at the Mental Health Institute at Cherokee, was guest speaker at the September scientific meeting of the Wright County Medical Society. Dr. Kjenaas spoke on "The Art of Psychotropic Drug Therapy." Physicians from adjoining counties also attended the meeting in Clarion.

DEATHS

Dr. Julia Ford Hill, 84, died September 11 at the Mayflower Home Health Center in Marshalltown. A 1909 graduate of Grinnell College, Dr. Hill attended The U. of I. College of Medicine and Johns Hopkins University where she entered the field of psychiatry. Dr. Hill retired to Santa Barbara, California, in 1954 and returned to Grinnell 10 years later. She was a life member of the Iowa Medical Society.

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WANTED—TWO INTERNISTS by 20 man multi-specialty group in northern Iowa serving regional area of 250,000. Fine family community of 30,000, close to University of Minnesota and Mayo Clinic. Major regional health care facilities complex being developed. $30,000 first year, partnership at end of 12 months. Generous time away benefits, pension program. Would become 6th and 7th men in department. Write Info Pack, Park Clinic, Mason City, Iowa 50401 or call 515-423-4120.

INTERNIST to join five-man group consisting of one general practitioner, two internists, and two general surgeons. New clinic building with laboratory and X-ray. Community of 7,200 with four-year college and excellent cultural, educational, and recreational opportunities. New 50-bed hospital a block from the clinic. Excellent starting salary and future partnership. Address your inquiry to No. 1457, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

GENERAL PRACTITIONER to join five-man group consisting of one general practitioner, two internists, and two general surgeons. New clinic building with laboratory and X-ray. Community of 7,200 with four-year college and excellent cultural, educational and recreational opportunities. New 50-bed hospital a block from the clinic. Excellent starting salary and future partnership. Address your inquiry to No. 1458, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

RADIOLOGY RESIDENCY POSITION OPEN—AMA and American College of Radiology approved program in 776-bed general hospital. Diagnosis, special procedures, therapy and isotopes. Write: Department of Radiology East, Metropolitan Medical Center, 900 South 8th Street, Minneapolis, Minnesota 55404.

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Medical or dental office space available. Located near Des Moines hospital. For further information write No. 1461, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

PHYSICIANS NEEDED—Iowa community of 15,000 in need of additional doctors. A general practitioner, internist, pediatrician, ophthalmologist, ENT, Ob-Gyn could fit into the community practice setting by making his home here. Address your inquiry to No. 1464, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

GENERAL SURGEON, certified or board eligible, to join a six-man group in northeast Iowa. Excellent clinic facilities —complete with X-ray, laboratory, and physical therapy departments. Good hospital facilities. Population 80,000, metropolitan area 150,000. University located within the metropolitan area. On contract for two years, first year, $30,000; second year, $36,000, and after that partnership. Address your inquiry to No. 1462, Journal of the Iowa Medical Society, 1001 Grand Avenue, West Des Moines, Iowa 50265.

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- Selection of Patients for Carotid Endarterectomy—William H. Baker, M.D.
- Osteogenic Sarcoma of Neck (Atlas)—Kazem Fathie, M.D., F.A.C.S., Kingsley B. Grant, M.D., and John F. Hess, M.D.
- Plea for Physician's Assistant—David F. Kapp, M.D.
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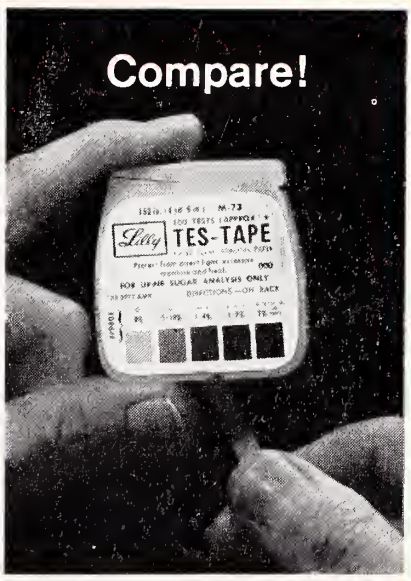

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December, 1971

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Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

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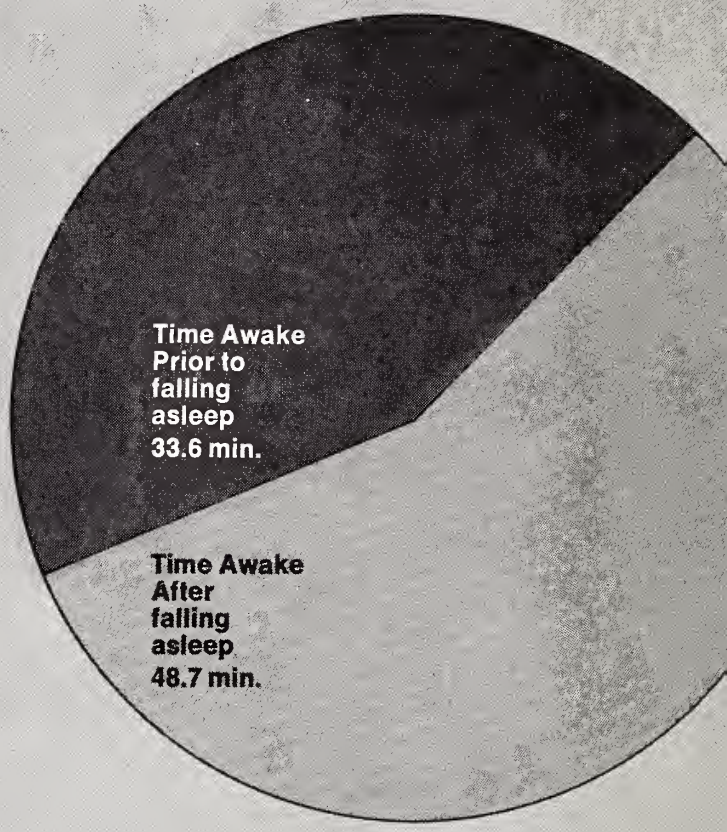
Results shown represent average values in all subjects for the three consecutive nights of placebo administration prior to Dalmane therapy and the seven consecutive nights on Dalmane 30 mg.

Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

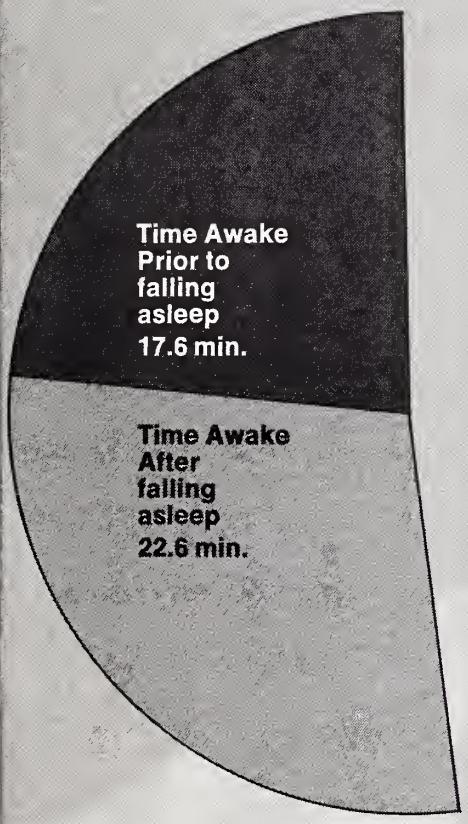
Before Dalmane (flurazepam HCl)



Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

On
Dalmane
(flurazepam HCl)



age sleep laboratory measurements in cited studies

meter	Before Dalmane	On Dalmane
required to fall asleep	33.6 min.	17.6 min.
time after onset of sleep	48.7 min.	22.6 min.
ber of wakeful periods after set of sleep	12.2	8.4
sleep time	420.0 min.	447.5 min.
sleep percent	88.6	94.5

inical effectiveness as
oven in the sleep laboratory

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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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The JOURNAL of THE IOWA MEDICAL SOCIETY

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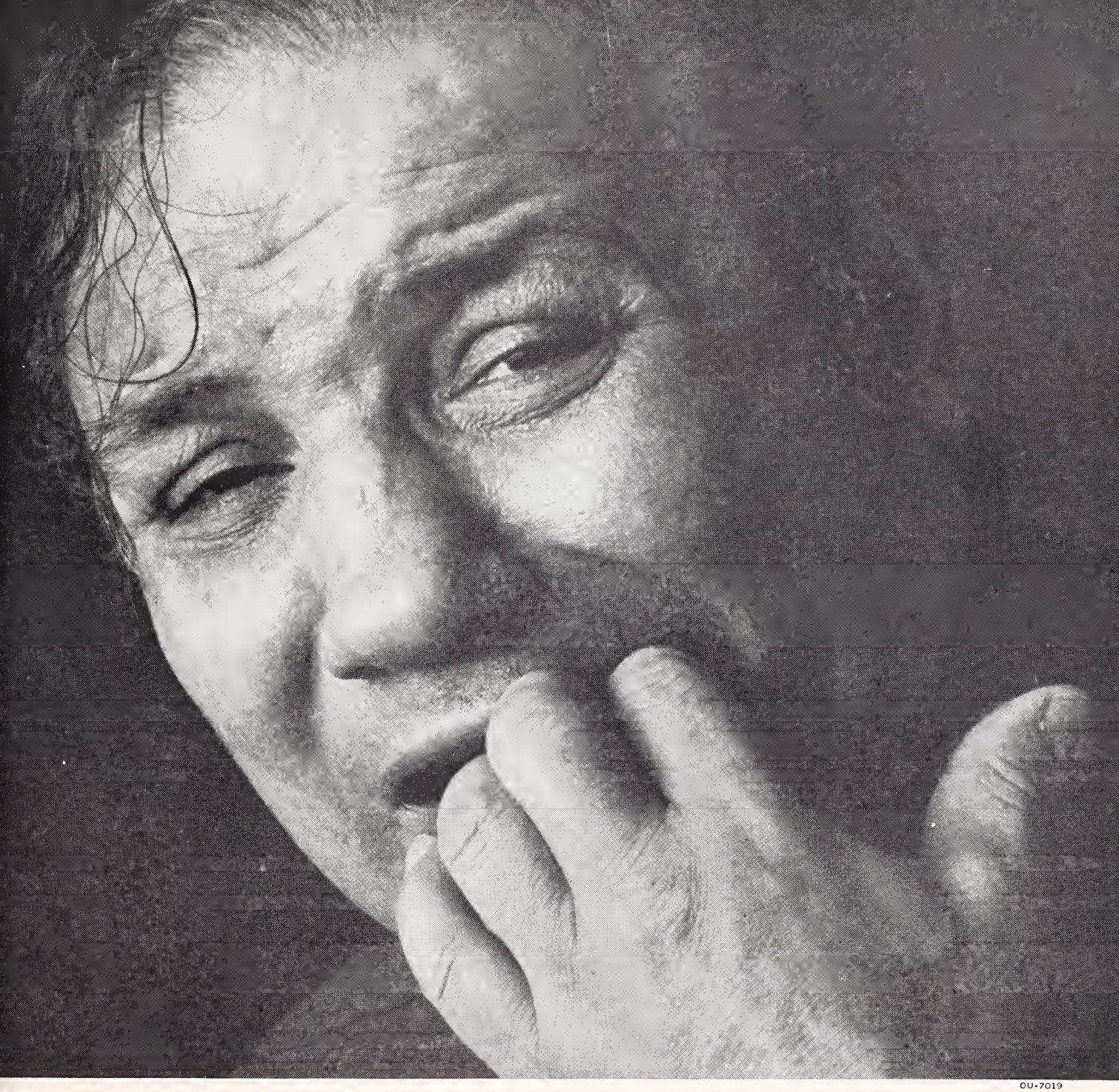

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President's Page

The IMS recently co-sponsored a JCAH meeting. Review of the status of hospital and staff is one of the finest methods devised to insure quality medical care. Let everyone know that physicians first conceptualized accreditation and singlehandedly provided the reviewing mechanism. Eventually other providers, because of intimate involvement, were invited to share the responsibility, cost and review of medical staff, nursing personnel, hospital administration, plant structure and medical services, as well as Board activities. The constitution and bylaws, which spell out the medical staff's relationship to the hospital board, administration, nursing personnel, etc., is of utmost importance. This document safeguards the rights, privileges and duties of physicians. It should define the legal and moral responsibilities of the governing board and delineate the obligations, authority and involvement of the administration.

The inspection process makes one aware of the difficulties in evaluating medical judgments of physicians when the treatment must be quickly and effectively chosen. In the operating room a surgeon must decide from his knowledge and experience the proper treatment for that patient under existing circumstances. Similarly, a physician in the coronary or intensive care unit must make immediate judgments and decide on specific drugs and specific therapy.

Computerization is expanding its role in the evaluation of quality care, already having made giant strides in retrospective review. PAS and MAP enable a physician or committee to evaluate retrospectively treatment of individual cases against that in similar or more sophisticated institutions. Reflective judgment of his own mode of treatment is made available to the knowledgeable and discerning physician. Staff education through departmental or general discussion actuates continuing medical competence and complements our reading, it broadens the effectiveness of our meetings and introduces medical information from various sources.

The mechanisms of a medical survey are open to prolonged and in-depth discussions. The physical plant and organizational structure are readily judged, but how does one evaluate the cooperation between medical staff members, between surgeons and anesthesiologists, between staff and administration, and between staff and board? These are and have been difficult areas to test and judge, they deserve our constant attention.

Best wishes for the holidays.

L. J. O'Brien M.D.

President

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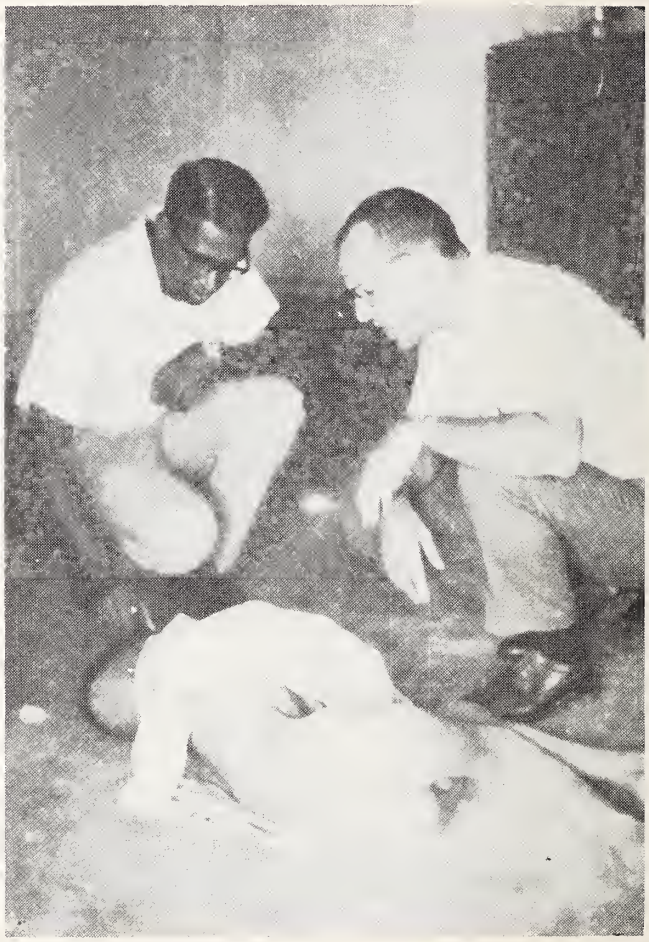
St. Ansgar

We all have wondered at various times in our medical careers where *ELSEWHERE* is or was. More often than not it is the place where the diagnosis was missed, the treatment was less than satisfactory, if not entirely inappropriate. If surgery was performed, it was poorly done and incomplete, and only by the strangest of circumstances was the patient steered to *OUR* institution. It is possible I may have worked in this fabulous setting.

The year was 1969—nearly Christmas—and the day was much like any other day. On Saturday morning I was making rounds on my little adopted ward. We had 38 patients at that time, seven of whom were battered paraplegics, two were prisoners chained to the beds, five were pregnant, and the remainder were men, women and children with a variety of compound fractures in different stages of nonunion.

About 10 a.m. an operating room technician came over and asked me to look at a boy with his leg blown off. I went, of course, and helped start the amputation. A hematology profile was ordered, as well as a phospholipid P, and serum cholesterol. Since it was suspected the boy's diet may have been deficient in vitamins and iron, a serum iron binding capacity was ordered also. However, the one laboratory technician spoke no English, and the equipment allowed only blood typing and an occasional white count and smear.

As we prepared to amputate, another physician came in and advised he had a patient in the next room with a dead baby in the uterus and would I help him get it out. Since he was a rather important man on the staff of *ELSEWHERE GENERAL*, I agreed, of course. When he was unable to get the baby out with forceps, he resorted to fetus crushing instruments, and in the process somehow managed to rupture the uterus. At that time, the mother was under fairly deep ether anesthesia, and she became more and more shocky. I dropped out, sent a



BARE NECESSITIES—The author, William E. Owen, M.D., St. Ansgar, right, describes this as a well-equipped examining room at Elsewhere General Hospital in Quang Ngai, South Viet Nam. Examining patient with Dr. Owen is an Indian surgeon who has had seven years training in the United States.

Dr. Owen has had two tours of duty (1966 and 1969) in Viet Nam under the AMA Volunteer Physicians program. In this short essay he recalls one day in 1969 at the Quang Ngai hospital, located a short distance south of Da Nang. Dr. Owen is in the private practice of general medicine in St. Ansgar.

call for another surgeon, and we started fluids in the patient's arm. We were able to get some Type O outdated low titer blood and without the benefit of crossmatching, we pumped in a couple of pints and finally obtained a blood pressure.

The abdominal hysterectomy at that time was almost complete, and I returned to the other room to check on the boy. He had been moved to the hall and another C Section was in progress. Just as I entered two little midwives came out with a pulseless apneic, gray infant, with an Apgar score of minus 10. Trying to be courteous, I made an effort to penetrate the total language barrier. I tried to explain that slapping the back in such a deeply anesthetized child did not help. I tried to make it clear that artificial respiration was necessary. We squeezed the little chest gently and in a matter of minutes the child was breathing well enough to allow the midwives to take it back to the maternity unit.

Both mothers were now in good enough condition to allow us to depart, since that afternoon we were to be hosts to a Christmas party for the nurses and technicians, whose guests we were at *ELSEWHERE GENERAL.*

On the way back to my quarters, I saw the stretcher bearers heading back to the operating rooms in the maternity wing. Our little friend, the anesthetist came late and I asked him how they made out. He said they had finished the amputation on the boy, but the mother had been in labor too long and both she and the baby died.

Holiday Footnote

Unless you have been there, as Dr. Owen has, it is hard to fathom the paucity of health care in Viet Nam, India or other of the underdeveloped nations. The difference between medical care in Iowa and Quang Ngai is barely comprehensible.

When Christmas arrives each year it is common and appropriate to savor family kinship, to look with compassion at hardship, and to dedicate one's self in some form to the peace-on-earth-good-will-to-men theme.

Christmas 1971 is no different; re-dedication is in order for all. Best holiday wishes from the officers and administrative staff of the Iowa Medical Society.

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IOWA MEDICAL MISCELLANY

VIETNAM SERVICE . . . In this issue of the JOURNAL William E. Owen, M.D., St. Ansgar, recalls a day in Vietnam during his second visit there. (See page 712.) Dr. Owen is one of seven Iowans who have participated in the Volunteer Physicians for Vietnam Program which is administered by the American Medical Association. The others are Elmer Smith, M.D., Des Moines, James E. Whitmire, M.D., Sumner, Robert Porter, M.D., Des Moines, Leonard K. Lackore, M.D., St. Ansgar (now in Gainesville, Fla.), James Y. Hendricks, M.D., Clear Lake, and Edward W. Green, M.D., Iowa City. Drs. Owen and Whitmire have had two two-month tours. The program has been operative since 1965.

• • •

REGISTRATION REQUIRED . . . End-of-the-month deadline exists for return of the application for State Controlled Substances Registration. This registration was made necessary by legislation passed by the 64th Iowa General Assembly. A State Registration Certificate will be issued when the application is submitted with the $5 fee to the Controlled Drug Division of the Board of Pharmacy Examiners. This annual state requirement is in addition to the federal Bureau of Narcotics and Dangerous Drugs (BNDD) certification.

• • •

BIG GIFT . . . Establishment of a model community health center in Muscatine took a giant step forward in November. It was announced last month the project is to be partially supported from the $3.5 million gift made to The University of Iowa Foundation by Roy J. Carver, chairman of the board of Bandag, Inc., a Muscatine company. The center concept has been approved in principle by the Muscatine County Medical Society and has been highlighted for the IMS Executive Council. In addition to offering care to Muscatine citizens, the center expects to serve as a community training ground for students, as a testing mechanism for new ways of delivering health care and as a demonstration facility for other interested communities. The center is one of several U. of I. programs which the Carver gift will support.

FORTHCOMING REVIEW . . . Medicaid regulations require the State Department of Social Services to conduct at least once-a-year medical review of all Title XIX recipients receiving care in Skilled Nursing Homes. Purpose: To assure said patients are appropriately placed, i.e.: Is either a higher or lower level of care in order? Review will supplement SNH's utilization analysis and the UR activities of the Carrier. Review teams must have at least a physician, nurse and social worker. O. N. Glesne, M.D., Fort Dodge, will serve as physician member of the team. Reviews are expected to begin this month or January. Elmer Smith, M.D., Director, DSS Bureau of Medical Services, advises reviews are not to interfere with responsibility of patient's attending physician. Physicians will be informed of date review is planned for their patients and the doctors' participation will be welcomed. The DSS will consult with a physician in advance about any proposed change in the status of a Title XIX patient.

• • •

SECOND TERM . . . Elmer M. Smith, M.D., Director, Bureau of Medical Services, State Department of Social Services, has been invited to serve a second two-year term on the Medical Assistance Advisory Council (Medicaid) of the Social and Rehabilitation Service. The 21-member Council is appointed by the Secretary of Health, Education and Welfare and advises on the administration of Title XIX.

• • •

73 SOCIETIES PARTICIPATE . . . Seventy-three county medical societies are utilizing the 1972 dues billing and collecting service offered by the IMS. The computerized program was started last year with 65 county participants.

• • •

UCR UPDATE . . . Three-page IMS News Bulletin distributed in November reviewed status of Blue Shield Usual, Customary and Reasonable Program. Attention was directed to late November meeting of Blue Shield Medical Advisory Committee scheduled to consider (1) more rapid update of physician usual and customary fees; (2) earlier instigation of the peer review process for claims exceeding payment at the usual level; and (3) possible utilization of the Iowa Foundation for Medical Care to measure quality, costs, etc. Society officers participated in the meeting.

• • •

NAMED PRESIDENT-ELECT . . . Robert S. Jaggard, M.D., Oelwein, was named president-elect of the Association of American Physicians and Surgeons at the organization's recent 28th annual meeting in St. Louis.

(Please turn to page 716)

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for grown-up colds

...that call for strong medicine
...the kinds that potent DRIXORAL is reserved for.
(Noses under 12 years of age
aren't eligible.) For the adult case of
nasal/sinus congestion:
a tablet for the day keeps congestion away,
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Contraindications: DRIXORAL should not be given to children under 12 years of age. DRIXORAL should not be administered to pregnant women or nursing mothers until the safety of this preparation for use during gestation and lactation is established. The preparation is contraindicated also in patients with severe hypertension and coronary artery disease. **Warnings:** As in the case of other preparations containing central nervous system acting drugs, patients receiving DRIXORAL should be cautioned about possible additive effects with alcohol and other central nervous system depressants (hypnotics, sedatives, tranquilizers). For the same reason they should be cautioned against hazardous occupations requiring complete mental alertness such as operating machinery or driving a motor vehicle. **Precautions:** Isoephedrine-containing preparations should be used with caution in the presence of: hypertension; coronary artery disease; any other cardiovascular disease; glaucoma; prostatic hypertrophy; hyperthyroidism; diabetes. **Adverse Reactions:** The physician should be alert to the possibility of all possible adverse reactions which have been observed with sympathomimetic and antihistaminic drugs. These include: drowsiness; confusion; restlessness; nausea; vomiting; drug rash; vertigo; palpitation; anorexia; dizziness; dysuria due to vesicle sphincter spasm; headache; insomnia; anxiety; tension; weakness; tachycardia; angina; sweating; blood pressure elevation; mydriasis; gastric distress; abdominal cramps; central nervous system stimulation; circulatory collapse. **For more complete details, consult package insert or Schering literature available from your Schering Representative or Medical Services Department, Schering Corporation, Union, New Jersey 07083.**

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- ☐ **belladonna alkaloids—for the hyperactive bowel**
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Composition: Each chewable, fruit-flavored, scored tablet contains: 16 mg. phenobarbital (warning: may be habit-forming); 0.1 mg. hyoscyamine sulfate; 0.02 mg. atropine sulfate; 0.007 mg. scopolamine hydrobromide; 40 mg. simethicone.
Contraindications: Hypersensitivity to barbiturates or belladonna alkaloids, glaucoma, advanced renal or hepatic disease.
Precautions: Administer with caution to patients with incipient glaucoma, bladder neck obstruction or urinary bladder atony. Prolonged use of barbiturates may be habit-forming.
Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.
Dosage: Adults: One or two tablets three or four times daily. Dosage can be adjusted depending on diagnosis and severity of symptoms. Children 2 to 12 years: One half or one tablet three or four times daily. Tablets may be chewed or swallowed with liquids.

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and the Latin **sedatus,**
to calm)

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his small amphibian can expand
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vice the size of its head.

Iowa Medical Miscellany

(Continued from page 714)

AFFIRM VOLUNTARY APPROACH . . . The concept of voluntary health planning was reaffirmed by the IMS Executive Council in October following a status report on the Health Planning Council of Iowa, presented by HPCI President Homer Skinner, M.D., Carroll.

• • •

STANDARDS & NORMS . . . IMS Executive Council approval was given in late October, with some modification, to the following recommendations of the Committee on Medical Review: (1) to accept provisionally medical care guidelines (subject to modification as necessary) of the Metropolitan Health Care Foundation (Hennepin County, Minnesota); (2) to consider further feasibility of one statewide standard and norm guideline for use in peer review and by the Iowa Foundation for Medical Care; (3) to maintain present councilor district peer review approach; (4) to provide standards of medical care, when completed and approved, to hospitals, peer review committees, etc., for use as an instrument to assure and support the delivery of quality medical care; and (5) to encourage immediate appointment by the Foundation of a committee to study its role in fostering quality medical care and develop specific measures to achieve this goal. The Committee on Medical Review is meeting December 8 to continue its study of the provisionally-accepted standards.

COMMITTEE ACTIVITIES . . . Ralph Krueger, assistant director of the AMA Department of Medicine and Religion, met December 2 with the IMS Committee on Medicine and Religion . . . Committee on Alcoholism met November 18 at Oakdale to tour the Alcoholic Treatment Unit . . . Committee on Drug Abuse is assisting Iowa Drug Abuse Authority in publicizing drug information centers established in 16 regional districts. Physicians are invited to contact the centers for educational material and to provide assistance if interested . . . Committee on Sports Medicine has offered its advisory services to the new State Boxing Commissioner; Committee has also reaffirmed its support for statewide use of the weight formula devised by C. M. Tipton, Ph.D., to predict the ideal competitive weight for high school wrestlers.

• • •

IMS AUDIO-VISUAL PROGRAM . . . Slide presentation explaining distribution of IMS dues dollars was seen by physicians in Councilor District VIII in Washington, Iowa, December 1, and will be viewed by physician members of the Woodbury Medical Society December 16. The 16-minute presentation is available on request.

• • •

DISTRICT XI SEMINAR . . . Thirty IMS members from Councilor District XI considered the shortage of physicians in southwest Iowa at a three-day seminar November 11-13.

★

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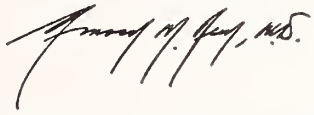

ARNOLD M. REEVE, M.D., M.P.H., COMMISSIONER

Immunizations for Overseas Travel

The physician in his own office can administer any immunization required for overseas travel except that for yellow fever.

CHOLERA

Many foreign countries require an International Certificate of Vaccination against cholera as a condition for entry from persons arriving from infected areas. To facilitate travel, two doses of cholera vaccine (0.5 ml. and 1.0 ml.) given a week or more apart are recommended. The dose for children below 10 years of age is proportionately smaller. Cholera vaccination certificates are valid for six months starting six days after the injection. The disease is transmitted primarily by contaminated water and food. The risk of cholera to American travelers is quite small since they generally use the tourist accommodations or have access to average sanitary facilities. Swimming in salt water contaminated by human sewage is hazardous and should be avoided.

DIPHTHERIA AND TETANUS

The recommended immunization schedule for Iowa is even more strongly recommended for overseas travel.

HEPATITIS, INFECTIOUS

Before travel to countries in Africa, Asia, Central America, South America and the Pacific region, immune serum globulin (ISG) may provide protection against infectious hepatitis.

MALARIA

Persons who reside in or travel through areas in which malaria is prevalent, and whose travel will expose them to malaria in a manner similar to which the native population in the malarious area is exposed, are advised to take weekly chloroquine, an anti-malarial drug.

MEASLES (RUBEOLA)

Measles vaccine is recommended for children over one year of age who have not had measles or previous immunization with the vaccine.

PLAGUE

Routine vaccination of tourists is not indicated. Immunization is advisable for persons traveling to Vietnam, Cambodia and Laos and for persons whose occupations bring them into frequent contact with wild rodents in South America, Africa or Asia.

POLIOMYELITIS

Adults who have received fewer than two doses of trivalent oral poliovirus vaccine, should receive two doses six to eight weeks apart before their departure. Adults who have had two or three doses of trivalent oral poliovirus vaccine should receive a single dose. Children who have completed the accepted primary course of poliovirus vaccine should receive a single booster of trivalent oral vaccine.

SMALLPOX

Some countries require proof of immunization against smallpox irrespective of itinerary. To meet United States international travel requirements, vaccination or revaccination must have been received within three years of the date of re-entry into the United States. At present this vaccination requirement for entry into the United States is not enforced if no smallpox reporting country has been visited within 14 days of entry.

The smallpox vaccination certificate is valid for a period of three years beginning eight days after the date of a successful primary vaccination or on the date of revaccination.

TYPHOID

Typhoid vaccine is not recommended for travelers who stay at the usual tourist accommodations in most European and Caribbean countries. Vaccination is advised for travelers going to areas where typhoid is currently an epidemic or endemic problem. Standard course is two injections at least four weeks apart with booster doses at one to three year intervals.

TYPHUS

Vaccination against typhus is not required by any country as a condition for entry. It may be indicated for certain special risk groups (construction workers, missionaries, medical personnel, etc.) who live or visit in areas where this louse-borne (epidemic) disease actually occurs and who will be in close contact with the indigenous population. Primary immunization consists of two injections of vaccine four or more weeks apart.

YELLOW FEVER

Some countries require an individual, even if only in transit, to have a valid International Certificate of Vaccination for yellow fever if he has been in countries either known or thought to harbor yellow fever virus. The Certificate must be signed and validated with the stamp of the Center where the vaccine is administered. Because of the great difficulty in maintaining a potent yellow fever vaccine, this antigen is administered only at Yellow Fever Vaccination Centers designated by the Foreign Quarantine Program of the U. S. Public Health Service and the state departments of health. Yellow Fever Vaccination Centers in Iowa are as follows:

CITY	ADDRESS	CLINIC HOURS	PHONE
Des Moines	Des Moines-Polk Co. Health Department East 1st & Des Moines Sts. 50309	Thursday, 2:30 P.M. By appointment $3 Fee	515/283-4966
Iowa City	University Hospital Student Health Service 52240	Wednesday, 10 A.M. By appointment $4 Fee	319/356-2247
Sioux City	Health Department City Hall P.O. Box 447 51102	First and second Thursdays, 1-4 P.M. No Fee	712/277-2121

Other Centers near Iowa are Chicago, Illinois; Minneapolis, St. Paul, and Rochester, Minnesota; and Kansas City, and Kirksville, Missouri. The Iowa State Department of Health (Phone 515, 281-5424) can furnish addresses and clinic hours of these Centers.

The International Certificate of Vaccination against yellow fever is valid for a period of 10 years beginning 10 days after vaccination.

If yellow fever inoculations are to be given, they should be given at least five days before smallpox vaccine is given.

INTERNATIONAL CERTIFICATES OF VACCINATION

These blank forms usually are received from the office to which the traveler makes application for passport. Passport applications are made through the office of the Clerk of a Federal Court or a State Court authorized by law to naturalize aliens. The importance of a valid Certificate of Vaccination complete in all details—when one is required—cannot be over-emphasized. Incomplete or improperly authenticated Certificates may well lead to serious delay or inconvenience of a traveler at a foreign port of entry or at ports of re-entry into the United States. Each traveler should be sure his Certificate is properly and fully completed.

STAMPS AND SEALS OF AUTHENTICATION

These are required for smallpox and cholera vaccination certificates. After the physician's data have been entered, the Certificate must be authenticated by any one of the following approved stamps or seals:

1. The stamp of state or local health department of the area in which the vaccinating physician practices.
2. The stamp issued to a private practitioner or an industrial physician who may use the stamp to certify only vaccinations given by himself or his colleagues in his own clinic.
3. The Seal of the Department of Defense, the Seal of the Department of State, or the Seal of the U. S. Public Health Service.

The yellow fever immunization entry must bear the stamp of the yellow fever immunization center giving the injection.

I REMEMBER WHEN—DO YOU?

The isolation or the identification of the favorable effect of liver in the diet in 1925 by Dr. Whipple. And the development in 1926 of a liver-rich diet by Drs. Minot and Murphy which changed the previously dreary picture with respect to the treatment and handling of pernicious anemia. It is true that for a few years until liver extract was definitely isolated in a form where it could be given even by injection, we had trouble trying to persuade patients to include raw liver in their diets so as to counteract the ill effects of pernicious anemia. The concoctions of raw liver were varied many times. Eventually liver extract was produced to facilitate the treatment process and dramatically improve the outlook for the pernicious anemia patient.—O. N. GLESNE, M.D., *Chairman, IMS Historical Committee.*

Morbidity Report for Month of October 1971

Diseases	Oct. 1971	1971 to Date	1970 to Date	Most October Cases Reported From These Counties
Blastomycosis	1	1	1	Floyd
Brucellosis	3	24	45	Black Hawk, Dubuque, Story
Chickenpox	220	5691	4476	Dubuque, Linn, Winnebago
Conjunctivitis	26	397	300	Floyd
Encephalitis				
Echo 6	1	1	2	Boone
Viral	1	4	3	Linn
Gastrointestinal viral infection	558	6366	177	Dubuque, Jackson, Linn
German measles	20	700	2032	Dickinson
Gonorrhea	529	4868	4597	Linn, Polk, Scott
Histoplasmosis	1	16	17	Palo Alto
Impetigo	108	434	552	Linn
Infectious hepatitis	14	257	301	Scott
Infectious mononucleosis	67	891	470	Marion, Scott
Measles	87	2361	1116	Des Moines
Meningitis				
Echo 4	1	1	1	Keokuk
Meningococcal	2	13	12	Jefferson
Viral	2	6	8	Linn, Wright
type unspecified	2	12	15	Fayette, Johnson
Mumps	501	3673	2623	Delaware, Dubuque, Linn
Pleurodynia				
Coxsackie B1	1	1	0	Johnson
Pneumonia	68	719	769	Scott
Rabies in animals	14	208	105	Scattered
Rheumatic fever	1	46	48	Cerro Gordo
Ringworm, body	14	121	182	Bremer, Butler, Plymouth
Roseola	3	25	0	Scott
Salmonellosis				
S. enteritidis	1	11	136	Linn
S. haifa	1	1	0	Black Hawk
S. infantis	2	3	5	Dubuque, Polk
S. muenchen	1	5	1	Story
S. newport	1	11	4	Mahaska
S. saint paul	1	3	3	Polk
S. typhimurium	5	42	27	Polk
S. urbana	1	1	0	Webster
Shigellosis				
S. sonnei	20	159	73	Scott
Group D	1	1	0	Dubuque
Streptococcal infections	439	5585	5563	Johnson
Syphilis	43	516	434	Polk, Scott
Tuberculosis, active	14	114	103	Scattered
Whooping cough	17	58	20	Calhoun, Mills

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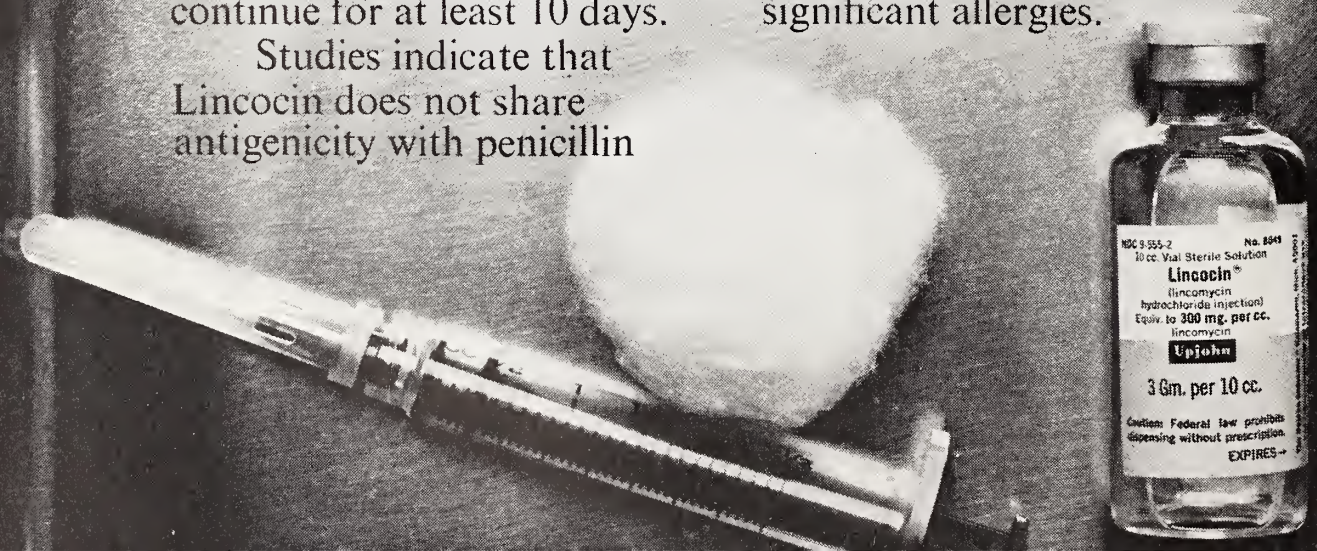
Hypersensitivity to penicillin is a good reason to consider Lincocin®

(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn)

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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.

Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

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Educationally Speaking

RICHARD M. CAPLAN, M.D.
Assistant Dean
Continuing Medical Education
U. of I. College of Medicine

Self-Assessment: Patient Management Problems

Last month I discussed self-assessment examinations in a general way. Those of you who have taken such exams may have been exposed to an interesting educational innovation—the "patient management problem."

For a test procedure to have "validity," it must measure what you really *want* it to measure. For medical practitioners engaged in self-assessment, that means you want to assess your *skill in taking care of patients,* and not just check your recall of isolated bits of information. How can it be done in a simulated, pencil-and-paper setting? Well, these innovative pencil-and-paper patient management problems come amazingly close. Here's how:

You are given some clinical information as a starting point, and then you must decide what is needed to manage the patient's problem: do you need historical information? physical findings? laboratory studies? consultation? You have many options in real-life, and likewise on the paper. But when you have made a choice, the test does not let you erase your intervention, and woe to your patient (and your score on the test) if you made an error in judgment. Because of technological advances, like special inks, or paper-coatings, you are provided with new information about the hypothetical patient at your request and also information on how he is progressing. The patient's progress under your care therefore relates to your skill in making proper clinical judgments. With "branching logic" problems, it is possible for you to help or harm your patient or do nothing really useful (at least as compared to the judgment of some "expert" who devised the problem).

The scoring of such an exam is not so very difficult, and at least, you are provided with some sort of objective measure of how you did—along with a good deal of subjective feeling about your own skill or uncertainty as you proceed through the problem. These exams are hard to beat for promptness of learner feedback, and if well-constructed, the problems are both fun and instructive.

Until now such problems have been available only within such examinations as the National Boards, the Family Practice Board examinations, and a few other special situations. Now, however, a new book is available: CLINICAL MANAGEMENT PROBLEMS, edited by McGuire and Solomon from the University of Illinois College of Medicine, and published by Appleton-Century-Crofts. It costs $12 for 20 patient problems and a special marking pen to permit you to work through the problems. I strongly recommend you give it a try. It will acquaint you with an important new modality for physician self-assessment, teach you a good deal of clinical medicine, and also provide lots of challenge and fun. What more can you ask than a "test" that's fun and instructive?

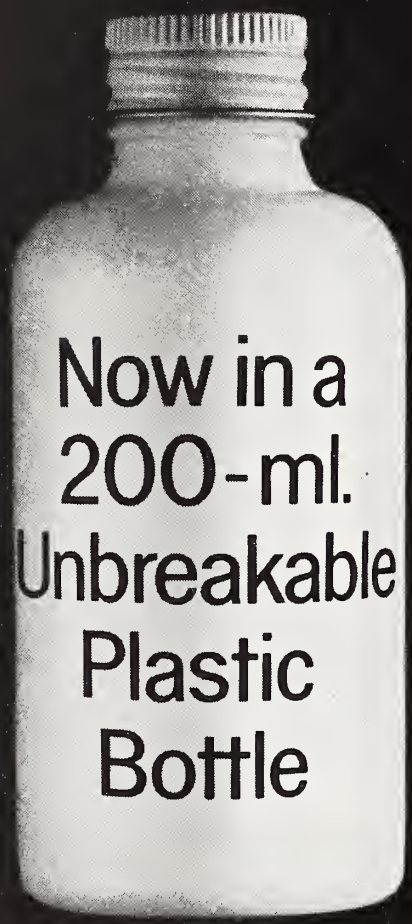
Continuing Education Courses & Conferences

Please call or write Office of Continuing Medical Education, College of Medicine, for further information on these programs. Telephone 319-353-5763.

Dec. 1	Ophthalmology Clinical Conference
Dec. 2	Clinical Day in Cerebrovascular Disease
Dec. 3	Cardiac and Respiratory Disease Conference
Dec. 6-9	Intensive Coronary Care Management
Dec. 8-9*	Obstetrics and Gynecology Postgraduate Course
Dec. 8-9	Basic Mycobacteriology (State Hygienic Laboratory)
Dec. 10-11	Postgraduate Conference in Surgery
Dec. 16	Refresher Course on Cerebrovascular Disease
1972	
Jan. 5	Ophthalmology Clinical Conference
Jan. 22	Instrumentation Workshop (State Hygienic Laboratory)

Unless otherwise specified all courses and conferences are held at The U. of I. College of Medicine, Iowa City.

** Iowa Obstetrical and Gynecological Society meeting will be held in conjunction with postgraduate course.*



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Scientific Articles

The Selection of Patients For Carotid Endarterectomy

WILLIAM H. BAKER, M.D.
Iowa City

Approximately 200,000 people die of strokes each year.[1] During the past 20 years physicians have increasingly recognized a direct causal relationship between extracranial occlusive vascular disease and the syndrome of cerebrovascular insufficiency and stroke. Initially, successful results of extracranial revascularization procedures were offset by high morbidity (stroke) and surgical mortality. However, recent reports from numerous centers[2, 3, 4] indicate that, in selected cases, carotid endarterectomy can be performed with morbidity of 1 per cent per operation and mortality of 0.5 per cent. These results are reflections of two factors: 1) technical surgical improvement, and 2) careful selection of cases. The purpose of this paper is to enumerate and discuss the criteria for proper selection of patients for carotid endarterectomy.

PATHOPHYSIOLOGY

The most common cause of extracranial occlusive vascular disease is atherosclerosis. Most commonly atheromata are located at the origin of the internal carotid artery (Figure 1). These lesions cause symptoms by reducing flow or serving as a source of emboli. Atherosclerosis, which reduces the lumen 50 per cent or more, may cause symptoms by interfering with flow, but either a large or small atheroma may be a source of emboli. The lesion may become ulcerated and discharge atheromatous debris into the cerebral circulation, or the roughened intima may become the seat of a mural thrombus which, in turn, may form emboli.

Finally, although atherosclerosis initially causes stenosis (partial obstruction), ultimately it may cause occlusion (complete obstruction). The incidence of stroke among patients with atherosclerotic occlusion of the internal carotid artery is unknown, but it may be as high as 30-40 per cent. Patients who survive may have symptoms of cerebrovascular insufficiency.

HISTORY AND PHYSICAL EXAMINATION

Patients may present a variety of neurological syndromes which may be classified as follows: 1) a transient ischemic attack (TIA) is a neurological deficit which lasts less than 24 hours; 2) a reversible ischemic neurological deficit (RIND) lasts longer than 24 hours but recovery occurs; and 3) a permanent neurological deficit.

The symptoms and signs may be further classified into hemispheric, vertebral-basilar,

Dr. Baker is an assistant professor of cardiovascular-thoracic surgery in the Department of Surgery at The U. of I. College of Medicine. Previously, he was a Fellow in Vascular Surgery at the University of California.

THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY HAS DESIGNATED THIS ARTICLE AS THE HENRY ALBERT SCIENTIFIC PRESENTATION FOR THE MONTH OF DECEMBER, 1971.

Figure 1. Right Carotid Arteriogram: This 53-year-old female presented with right hemispheric transient ischemic attacks. The arteriogram demonstrates a stenosis at the origin of the right internal carotid artery.

and non-specific (Table I). Hemispheric symptoms include unilateral motor and sensory deficits. Dysphasia is a consequence of ischemia of the dominant hemisphere. Amaurosis fugax, or fleeting blindness, of one eye is caused by transient ischemia and points to disease of the ipsilateral carotid artery. The patient will describe a dark curtain coming over the field of vision of one eye. There is blindness of all or part of the visual field which lasts but a few minutes before the curtain rises and normal vision returns. The patient may also report he sees unilateral flickering lights or sparklers. Amaurosis fugax and sparklers are caused by emboli in the retinal vessels.

The classic symptoms of reduced flow within the vertebral-basilar arterial system are vertigo, ataxia, dysarthria and syncope. A drop attack is the sudden loss of strength of the legs which causes the patient to fall without loss of consciousness. Complete recovery is as rapid as the onset of symptoms.

Non-specific symptoms of cerebrovascular insufficiency are also listed in Table I. It is obvious that not all patients with headaches, decreased mentation, etc., will have significant extracranial vascular disease. However, some patients with nonspecific symptoms and significant lesions in the carotid arteries have had immediate improvement after carotid endarterectomy. Therefore, the physician must do a complete examination of the extracranial vascular system and not dismiss these complaints as "natural consequences of old age."

The physical examination should place special emphasis on the neurologic and vascular examination. The blood pressure is taken in each arm. The superficial temporal arteries and carotid arteries can be palpated easily. The subclavian artery is best palpated in the supraclavicular space. The central (aorta) and peripheral arteries should be palpated also. Auscultation of accessible vessels is required. The heart is examined for common intracardiac sources of emboli, such as atrial fibrillation, valvular abnormalities, ventricular aneurysms, etc.

A bruit is the sound of turbulent flow and will be present in most cases of significant obstruction in the carotid artery. However, in some circumstances no bruit will be heard: 1) the artery is occluded; 2) a smooth lesion will not produce turbulent flow and hence, no bruit will be heard; 3) a small, ulcerated plaque which discharges atheromatous debris

TABLE I

CLASSIFICATION OF SYMPTOMS

Hemispheric	Vertebral-Basilar	Non-Specific
Hemiparesis	Vertigo (true)	Dizziness
Paresthesias	Ataxia	Light headedness
Monocular visual	Diplopia	Decreased mentation
Dysphasias	Bilateral visual aberrations	Headache
Monoparesis	Shifting pareses or paresthesias	Confusion
	Drop attacks	Personality change
	Dysarthria	Tinnitus
	Syncope	Decreased visual acuity
		Seizures

may not produce a bruit; and 4) a severe degree of stenosis (99 per cent) will not produce a bruit if the flow is too slow to produce significant turbulence.

Performance of arteriograms is mandatory to identify precisely the lesion(s) and to plan surgical therapy. Details of this essential examination are beyond the scope of this paper.

INDICATION FOR OPERATION

The ideal patient for carotid endarterectomy is one who has no neurological deficit on physical examination and who has a stenotic lesion at the orifice of the internal carotid artery. He will present with a history of transient ischemic attacks, either hemispheric, vetebral-basilar, or non-specific, or a carotid bruit will be present even though the patient is asymptomatic. The operative mortality and morbidity in this group of patients is close to 1 per cent and 0.5 per cent, respectively.[2, 3, 4]

In addition, the long-term benefit is excellent. At the University of California, of those patients with hemispheric, transient ischemic attacks, 99 per cent had no symptoms after carotid endarterectomy, and 90 per cent of the patients with vertebral-basilar type of symptoms had no symptoms postoperatively. Of the total of 247 patients, one developed new transient ischemic attacks related to the carotid artery which had been operated upon, and seven patients developed strokes related to that side during an average follow-up period of four years. Thus, only 3.2 per cent of the patients had complications late after the operation.

Patients with a chronic stroke syndrome, i.e., those who have survived an acute stroke but with residual neurological deficit, cannot be expected to recover function following a revascularization procedure. These patients should be operated upon only if they have transient symptoms in addition to their permanent neurological deficit, or if endarterectomy is to prevent additional, more disabling neurological deficits. It is necessary to wait at least one month after the onset of a neurological deficit or until the neurological deficit is stabilized, before performing carotid endarterectomy. Although there is an increased surgical risk in these cases, it is not nearly as great as in the case of an acute stroke.

CONTRAINDICATIONS TO OPERATION

The patient with an acute stroke is a poor candidate for any cerebral revascularization procedure including carotid endarterectomy. These patients have acutely injured or necrotic neural tissue and if the carotid stenosis or occlusion is relieved at this time, the arterial pressure is increased in the acutely ischemic area. Consequently there may be hemorrhage within the damaged area and conversion of a "white" infarct into a "red" infarct. Inasmuch as the results of surgical and nonsurgical treatment are approximately the same during the acute phase, nonsurgical therapy is recommended.

Regardless of the patient's symptoms, an *occluded* (completely obstructed) internal carotid artery should not be opened by endarterectomy. Although endarterectomy for stenosis may be accomplished with low risk, endarterectomy for occlusion of an internal carotid artery is hazardous and less successful. Furthermore, the patient who has a neurological deficit may have dead neural tissue. A significant improvement after carotid endarterectomy cannot be expected in this situation.

On the other hand, if a patient has an *occlusion* of the internal carotid artery on one side and a *stenosis* on the other side, there is no contraindication for carotid endarterectomy on the side with the stenosis. Surgical mortality and morbidity among patients without neurological deficit are not related to the degree of patency of the contralateral carotid artery.[2] Hence, patients with cerebrovascular insufficiency and these arteriographic features are excellent candidates for operation; but carotid endarterectomy must be performed on the side with the stenotic lesion, *not* on the side with the occluded vessel.

SUMMARY

The indications and contraindications for carotid endarterectomy are reviewed. The ideal patient is one who presents with transient ischemic attacks, has no neurological deficit on physical examination, and stenosis is present at the origin of an internal carotid artery. The expected mortality and morbidity rates are 1.0 per cent and 0.5 per cent, respectively.

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Osteogenic Sarcoma of the Neck (Atlas)

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WITH THE EXCEPTION of multiple myeloma, osteogenic sarcoma is the most common malignant primary tumor of bone.[1] However, reports of its location in the vertebral column, particularly the cervical region, are extremely rare.[2, 3] The purpose of this paper is to record a case of osteogenic sarcoma in the cervical vertebra of a 40-year-old Caucasian male.

CASE HISTORY

This 40-year-old white male complained of right-sided neck pain when first seen in February 1969. The patient related a history of spontaneous onset of cervical pain in 1965 which was relieved by chiropractic manipulations. In the spring of 1968, the pain recurred and at that time neither chiropractic treatment nor symptomatic care by a physician were effective. X-rays of the cervical spine and skull in January 1969 were interpreted as normal with the incidental finding of cervical ribs. However, in retrospect, there was a small irregularity along the right lateral mass of the atlas.

An orthopedist diagnosed "myofascial cervical strain" and after a trial of traction, a cervical cast was applied. The patient showed no improvement and on May 31, 1969, he was admitted to St. Luke's Methodist Hospital with neurological findings of 7th and 12th nerve involvement on the right. There was deviation of the tongue with numbness along the lateral portion, dysphagia, hoarseness, and slight dysarthria. He complained of nocturnal pains at the base of the skull, radiating into the right ear and right side of the head, along

The authors are members of the Departments of Neurological Surgery, Pathology and Radiology at St. Luke's Methodist Hospital in Cedar Rapids.

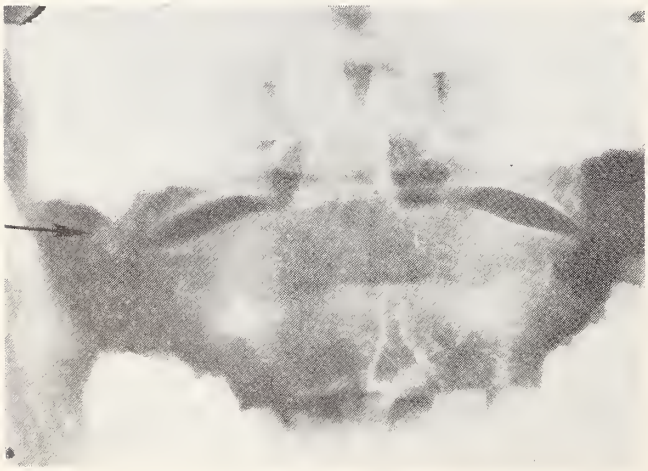

Figure 1. Open mouth view. Arrow at neoplastic bone of C1, right.

Figure 2. Oblique view. Neoplastic calcification and destruction of cortical margin—C1, right.

with severe pressure sensation in the back of the neck. Extensive neurosurgical evaluation, including right common carotid and cerebral angiography, brain scanning, electroencephalography, echoencephalography, complete myelography and air studies, produced findings entirely within normal limits. X-rays of the skull, cervical spine and mastoids were thought to be within normal limits (but in retrospect, an area of irregularity along the right lateral mass of the atlas is noted, and is prominent on the open mouth views of the odontoid). (Figure 1) Laboratory examination showed: white blood cells 5,600; Hemoglobin 14.5; VDRL negative. A large, hard mass behind the mastoid process in the region of the stylomastoid foramen was palpable on the right side of the neck. This mass was painful and extended almost to the base of the skull. A biopsy from the region of the mass was negative for tumor. On June 27, 1969, the patient was discharged for office follow up.

OPERATION

The patient was readmitted in October 1969 for posterior auricular and occipital neurectomies because of his increasing pain and disability. Preoperative films of the cervical spine, mastoid region and base of the skull revealed a large area of tumor calcification along the right border of the atlas and adjacent to the base of the skull. (Figure 2) Repeat biopsy from the deep tissues of the neck revealed a highly anaplastic tumor of malignant osteoid formation in an extremely fibrocellular stroma (Figure 3), along with marked hyperchromasia and numerous bizarre mitotic figures (Figure 4). A final diagnosis of osteogenic sarcoma was made.

POST-OPERATIVE COURSE

The patient was treated at the Mayo Clinic to maximum tolerance with radiation and chemotherapy. He pursued a steadily deteriorating course and at terminal admission to St. Luke's Methodist Hospital was unable to fully open his mouth because of mastoid and maxillary infiltration by the tumor. He expired on September 1, 1970. At post-mortem both lungs were the site of massive fibrous, osteoid and frank bone tumor metastases (Figure 5), with extensive secondary bronchopneumonia.

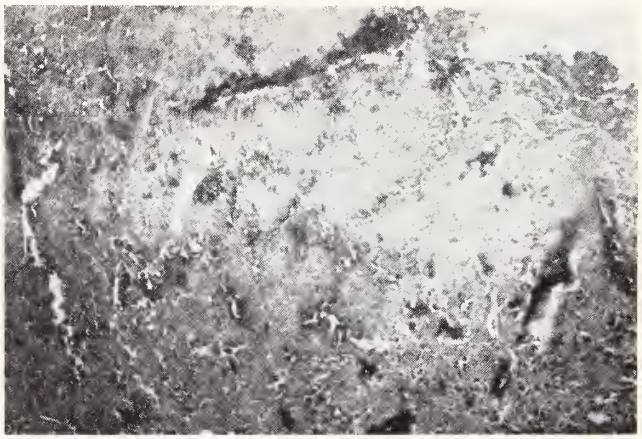

Figure 3. Microscopic appearance of malignant osteoid formation in anaplastic cellular stroma of biopsy.

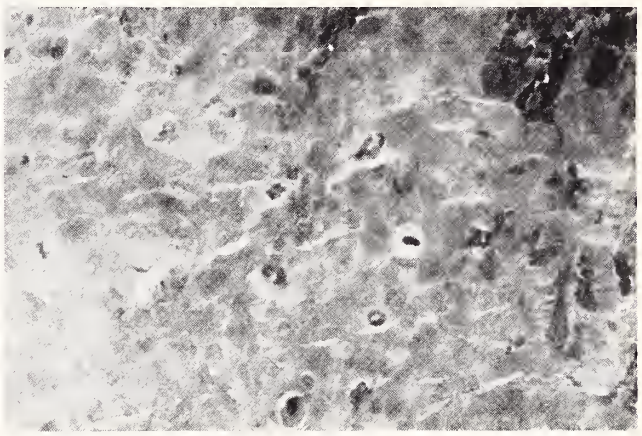

Figure 4. Microscopic high-power field showing many bizarre mitotic figures.

Figure 5. Bony lung metastases on post-mortem film.

The liver, kidneys and lymph nodes also contained metastases. Cosmetic considerations precluded adequate exploration of the primary mass in the right neck and face but sections of the strap muscles showed diffuse infiltrating tumor. No intracranial lesions were present.

DISCUSSION

In their review of 430 cases of osteogenic sarcoma, Coventry and Dahlin[1] analyzed extensively the histologic and biologic features of these tumors. That review, including the discussants' remarks, and the material from more recent texts[4, 5] are sufficiently cogent and applicable as not to warrant further detailed commentaries in this report.

SUMMARY

A case report of osteogenic sarcoma arising in a cervical vertebra of a 40-year-old white male is presented. The authors stress the rarity of this location for what is the second most common malignancy of bone.

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A Plea for the Physician's Assistant

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Dubuque

REGARDLESS OF PERSONAL FEELINGS concerning the merits or demerits of private versus group practice, third-party and/or governmental intervention in the practice of medicine, or fee-for-service versus prepaid medical care, I believe physicians must admit we have a problem in the delivery of high quality care to our total population. Indeed, complaints, annunciations, and even pontifications about the magnitude of the problem and its solution have emanated from our patients, our labor leaders, legislators, washroom attendants, and, yes, even from a few interested physicians!

While I cannot agree verbatim with all the pronouncements, I believe in principle with the following quotes:

1) "The (total comprehensive) health care of our nation is a disgrace. While the shortage of physicians chokes the poor, it is now beginning to squeeze the affluent."

2) "Medical care in the U. S. is expensive and poorly distributed. National Health Care will probably make things worse. The concept of medical care as a right is an excellent principle. We cannot realize quality care for all unless we change the method of delivery and separate the sick from the well without wasting the physician's time."

3) "One of the real tragedies of medicine is that physicians spend a great amount of time and money preparing for their responsibilities, then in private practice, spend an inordinate amount of time on duties that could be assumed by individuals with far less training and education."

THE PROBLEM

Since the turn of the century, both the number of patients seeking medical care and the number of physicians available to render care have increased. (Figure 1) Unfortunately, the ratio of the change has been to the physician's disadvantage. With third-party insurance carriers entering the health care field in the 30's and 40's, and the more recent involvement of the federal government, i.e., Medicare, Medicaid, etc., the system has become saturated, and from hereon it will be rapidly supersaturated. This can only mean, from purely a time and

Dr. Kapp is associated with Medical Associates in Dubuque in the practice of internal medicine. This paper was presented in April at the 1971 Annual Meeting of the Iowa Medical Society.

numbers standpoint, that many of those who seek care in the future will be denied such care, or it will be rendered in substandard quality unless a more effective system of delivery is developed. A quick glance at the comparative physician and population figures does not require the mind of a genius to realize that *The Future Is Now!*

The problem is more than a simple numbers game, however. (Figure 2) Not only have the number of persons seeking care disproportionately increased, but the types of patients as well as their reasons for seeking care have also changed. Whereas, in 1900 only the extremely sick or the very wealthy bothered to consult the physician, we now find that fully one-half of those consuming the busy physician's time are, in fact, not sick; and half of these come merely for a health checkup, which we ourselves have encouraged! They do not necessarily require either the time or the talent of the physician, at least not to the extent they now use it.

The preceding references to the problems of health care delivery are, of course, gathered from national population figures and the attitudes of nationally prominent persons. Admittedly, neither the figures nor the personalities speak for the State of Iowa. Certainly population figures for the State show little, if any, appreciable change over the last two decades. It is fair to ask how these figures could possibly apply to our situation. I, too, would like to take the attitude that, "In Iowa, it's different." Or is it? Figure 3 tabulates problems in the City of Dubuque which are no different from those in the nation. Dubuque, like its parent State, has had a stable general and physician population for many years. Our physician population of some 60 doctors is somewhat unique, however, in that 90 per cent are specialty trained.

Medical Associates, while a multi-specialty group, concentrates the bulk of its practice on acute care, so that the numbers and types of patients entering its Department of Internal Medicine should closely aproximate those entering the General Practitioner's office. Our Department was a five-man one from 1960 through 1970, and with a stable city population, one would think patient volume would also remain stable. Such was not the case. From 1960 to 1966 we ran comfortably a near

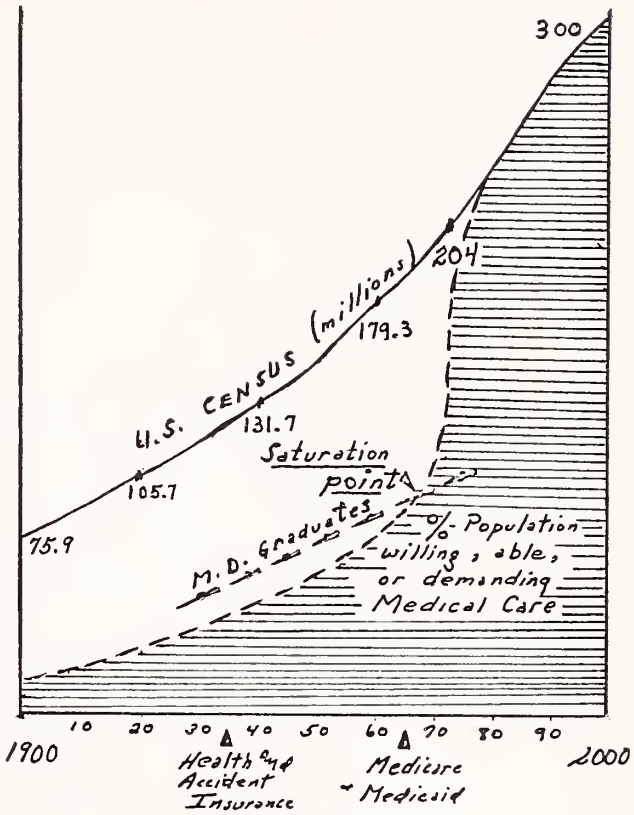

Figure 1

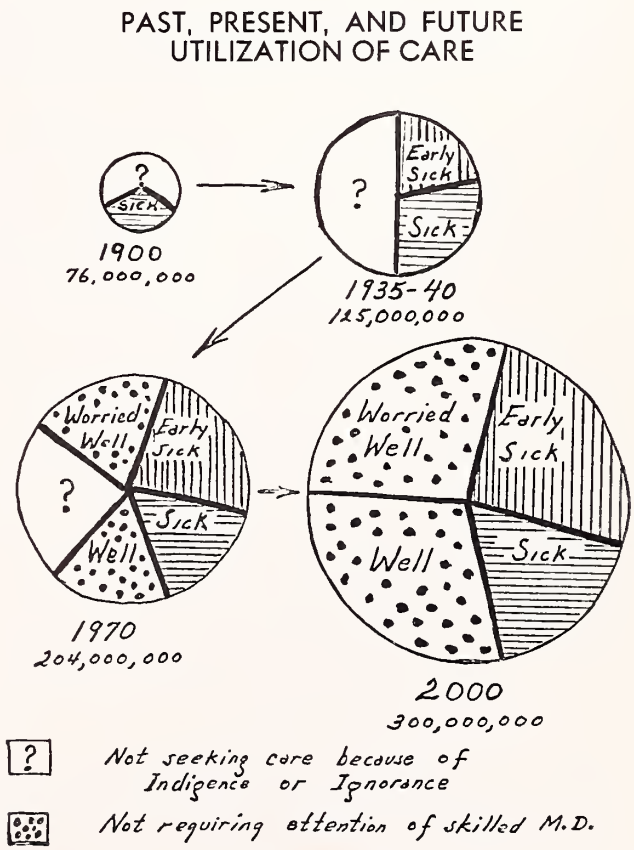

Figure 2

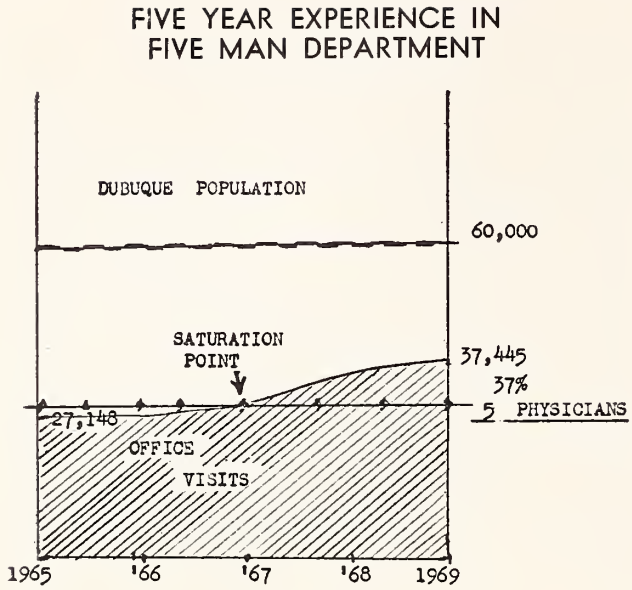

Figure 3

saturation office and hospital practice, and sometimes even had time to speak to each other! Then, as those in the military would say, "Medicare hit the fan!" In the next three and a half years our patient load increased 37 per cent.

Figure 4 depicts the current problem, on a daily basis, for one member of the Department during a typical practice week. Many patients would willingly come to the office, or to any other physician's office in the community, were his time available. Instead they appear as *extras* without appointments, or worse yet, they are treated by a telephone prescription. Admittedly, this is not good medical care; and to compound the problem, it compromises time spent with those who took the trouble to make and keep their appointments. The entire system, i.e., the patient, the physician, and the quality of care, all suffer.

As a rule, those in our group consider me to be one of the more optimistic members. Unless we can find newer and more effective ways to deliver medical care to our patients, and until we can successfully recruit more personnel, both medical and paramedical, to do the job, my most optimistic prediction for the future is that, *Things are going to get worse—and fast!*

THE SOLUTIONS

There appear to be only three ways out of the present dilemma. As near as I can calculate, the first is improbable and undesirable; the second is impossible; and the third, and only one that seems to offer a rapid solution, is presently in an embryonic stage.

The ideal solution, of course, would involve (1) the immediate availability and mass production of new physicians and (2) the utilization of registered nurses as the Physicians' Assistants. Unless we are willing to return to the pre-Flexner diploma-mill-era we cannot mass produce either product, and certainly not in the quality we and our patients demand. This solution, therefore, appears to be neither probable nor desirable.

If we continue to insist that only physicians and registered nurses can properly administer to the needs of the patient, and admit that the numbers of neither are sufficient, the second alternative would be to insert more hours in the day. This does not seem to be possible.

The only logical solution for rapid relief would appear to be the training of suitable paramedical personnel, who, *while working under the physician's supervision and responsibility,* could recognize and separate the sick from the well patient, treat the minor ailments, and thus free the physicians to care for those who require the time and expertise of a physician. Such a person could soon fill the personnel gap that now exists. The Physician's Assistant, as presently trained at Duke University, is, in my opinion, such a person, who

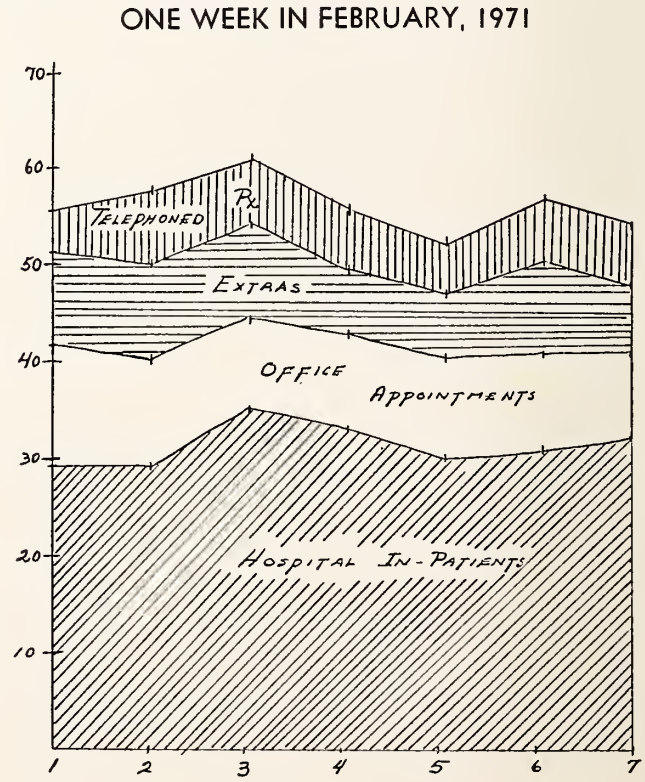

Figure 4

when properly employed, can, in many ways, be of service to the practicing physician. Such an assistant could release some 50 per cent of the physician's present time spent with individual patients, thus allowing the physician to render more service to more patients per unit time. To his pleasure, the physician will find that his productivity increases, but more importantly, when the Physician's Assistant is properly used, the total quality of the practive can be enhanced.

Impetus for the training of the Physician's Assistant has come from the American Medical Association, the Board on Medicine of the National Academy of Sciences, the Carnegie Commission on Higher Education; and, yes, even from the DUBUQUE LEADER, a local union newspaper.

STATUS

Since he is a "new breed of cat" so to speak, the capabilities and qualifications of the Physician's Assistant are not widely known. To compound the problem, the Physician's Assistant's duties, responsibilities, and legal status are presently in a grey area in many states. To make the Physician's Assistant an effective individual, many states will have to amend their medical practice acts. At the same time, these amendments should not be tied up in stringent licensing restrictions that would, in fact, defeat the very purpose for the existence of the Physician's Assistant.

It is not my prerogative to state any legal dogma at this time, but I do believe a statement by the Dean of the College of Allied Health Professions at the University of Kentucky is apropos: "There isn't a physician worth his salt who hasn't trained his informal assistant in some capacity to act beyond the limits of the law!"

In spite of our need for help, and in spite of the fact that a properly trained Physician's Assistant would seem to be the logical person to supply that help, it is the physician who, to date, has been the most vocal in offering resistance to his use. The registered nurse runs a close second in the interference. This has been clearly shown by the survey of Iowa physicians made by John MacQueen, M.D., Associate Dean, University of Iowa, College of Medicine. The survey reported up to 26.9 per cent of Iowa's doctors would not even consider employing a Physician's Assistant. Wilfred Trotter has said, "The mind likes a strange idea as little as the body likes a strange protein, and resists it with similar energy—if we watch ourselves honestly, we shall often find that we have begun to argue against a new idea before it has been completely stated."

Apparently *our physician-ego* prohibits us from considering the potential of a non-M.D. or non-R.N. dealing directly with the patient. The one who really matters, namely, the consumer of our services, the patient, shows a high degree of acceptance in those areas where the Physician's Assistant is a reality.

In the past year Medical Associates has had a 10 weeks' association with a Duke University graduate Physician's Assistant who was with us as an extern. Since that time we have in our employ an Orthopedic Assistant.

I can categorically state that we have been impressed with the abilities of these men and the thoroughness with which they have carried out their assignments. They worked within their limits, did not exceed their responsibilities, and have been well accepted by patients. Our Orthopedic Surgeons are presently considering the addition of another Orthopedic Assistant to the Department.

We are anxious to see a Physician's Assistant training program initiated at The University of Iowa College of Medicine, for we believe the quality and quantity of care rendered by the practitioner of medicine can be enhanced with support from the properly trained Physician's Assistant.

I believe the nation has a problem in delivering high quality care to all its citizens. I believe too the problem is not confined to the cities, the ghettos, or other far-away places. It is here—it is now—and it is getting worse at a much faster pace than we can supply either physicians or nurses to stem the tide. The use of well trained Physicians' Assistants appears to this author to be the best interim solution to the present needs. It is neither the only nor the final solution. Other imaginative improvisations must be fostered; some mistakes will certainly be made along the way, but we must be the initiators and the doers.

Let us not accept the view of that most famous of all present day American philosophers, Charlie Brown, who said, "There is no problem so large or so complex that it cannot be run away from!"

Editorials

IRON-FORTIFIED INFANT FORMULAS

On December 15, 1970 the Committee on Nutrition of the American Academy of Pediatrics issued a Newsletter Supplement recommending the routine use of iron-fortified milks for infants during their first 12 months of life. Consequently, several manufacturers of infant formulas have taken this recommendation to the world of pediatrics implying that heretofore the milk fed to infants has been inadequate and that the incidence of iron-deficiency anemia among children is bordering on a national disgrace. Then, many pediatricians came to the forefront and expressed their displeasure with such statements.

The consideration of iron-deficiency anemia in infants cannot be resolved by making broad generalizations, nor can the care of infants be improved by simply proclaiming that all should receive iron-fortified milk for one year. Too many other factors are present and require consideration in a good preventive-medicine approach by the physician charged with the care of infants and children. Milk alone is not the answer. It is necessary to consider the other foods given to the child, and the manner in which these foods are provided. Parents must realize that infants have peculiar feeding habits and that malnutrition can be caused by giving in to infant whims. For example, I have seen infants at the age of 12-15 months who are *content* to lay around most of the day sucking on bottles of milk, consuming 1-2 quarts per day, not wanting any solid foods, and subsequently becoming anemic. Now that is not necessarily the infant's fault. The mother is either misinformed, lazy, or has been led down the primrose path and made to believe that milk is nature's perfect food, and if taken in large amounts, will insure that the child will live under a halo of good health. I do not deny that milk is a good food, but hasn't much of the focus of its importance been made by the dairy industry and its subsidiaries? One evening a television commercial by a local dairy gave the implication that to be healthy one needed several glasses of milk per meal (and the glasses pictured appeared to be at least 10-12 ounces capacity). Now that borders on the ridiculous, as well as untrue advertising.

Take one step farther in these random thoughts . . . though not now being necessarily serious. With the exception of humans, all mammals I am aware of never drink milk naturally during their lifetime once they are weaned by the mother. Yet humans continue to drink milk (and milk that was originally designed for calves) the rest of their lives. Yet it is said we are not too healthy and iron must be added. Breast milk contains no iron. There seems to be a loophole somewhere.

Recently in the PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE (Vol. 64, May 1971, pp. 579-580) David Burman, M.D., M.R.C.P., from the Royal Hospital for Sick Children, Bristol, England, said in his paper *Anemia in Infancy —Is Iron Required?:* "No difference was found in either incidence or duration of illness between those taking iron and those who did not. The infants taking iron were persistently heavier than those not taking iron. . . . It can be concluded that raising the hemoglobin is of doubtful benefit and since an increasing weight is certainly a disadvantage in this society in terms of adult mortality and morbidity, the case for giving supplement of iron to normal mature infants in this country must be considered 'not proven.'" Burman could only show that mature male infants given supplemental iron gained more weight—an attribute not necessarily an essential of good health.

Therefore, before succumbing to the admoni-

tions of the infant formula advertisements, based on a committee report, let us each view the entire program of infant feeding on an individual basis. Then, we who are charged with advice on infant care can give the best counsel to parents.—M.E.A.

WHAT TO DO AND WHEN TO STOP

When should a doctor stop trying to make a diagnosis? When do you settle for ignorance? Or if not exactly ignorance, being uninformed? A good case can be made for the proposition that a little bit of hypocrisy, at the right time and in the right place, is a good thing, but it is decidedly more difficult to make a case for ignorance. However, consider this:

A patient is seen with obvious signs of superior vena cava obstruction: swelling and a dusky cyanotic color of the upper body and head and neck, extensive venous collaterals, difficulty in breathing and a chest x-ray showing a right hilar or superior mediastinal mass. In addition, he is coughing up blood, has lost much weight, is old and requires almost constant oxygen.

What to do?

Well, to begin with, we know that the risk of exploratory thoracotomy is prohibitive, and that a malignancy (usually bronchogenic carcinoma) is the etiological factor in the great majority of these cases. We also know that a thorough diagnostic work-up consists of one or all of the following: bronchoscopy and scalene biopsy under general anesthesia (dangerous and potentially lethal), bronchoscopy and scalene biopsy under local anesthesia (technically difficult and potentially dangerous), lung scan and liver scan (safe but inconclusive), pulmonary function studies (useless), bone marrow studies (easy and practical), and sputum cytology (easy and practical). Where, then, do we begin, and where do we stop?

It is only good sense to do the easy and practical procedures; it is foolish to do the useless and the inconclusive. We are left then to decide what to do about those diagnostic procedures that are useful, though difficult and dangerous. The point to bear in mind here would seem to be whether the patient can be cured or effectively palliated even if the case is precisely diagnosed.

Without deluding ourselves, a candid judgment must be made: Is the chance of cure or palliation great enough to outweigh the danger or distress of the procedure? In consideration of this, it is important to remember that we are doctors, not scientists. The heart and soul of the practice of medicine is not in the acquisition of scientific information, but in our use of available information and in the wisdom with which we balance our choices for the patient's advantage. A diagnosis is not an end in itself. The struggle to diagnose can only be justified when it serves the patient. There is something inspiring about never giving up, but let's not confuse our valor with the patient's welfare.

So much for the ignorance business.

Now about how to handle that patient with the superior vena cava obstruction: Well . . . don't push . . . some other time. . . . —DANIEL F. CROWLEY, M.D.

AMA DRUG EVALUATIONS 1971—FIRST EDITION

This new, first edition, $15 soft-covered folio-post quarto volume is designed to replace older publications of the AMA Council on Drugs, i.e., NEW AND OFFICIAL REMEDIES and NON-OFFICIAL DRUGS, and more recently NEW DRUGS. The new book is intended to give the practicing physician "the most important information to help in his prescribing practices."

"Following a section on general information the chapters of the book contain discussions on groups of related drugs, followed by brief evaluative statements on individual drugs." More detailed units on single entity drugs introduced during the last 10 years appear alphabetically in the New Drug section. An appendix summarizes the functions of various

official and regulatory agencies in the United States and three indices have been prepared to help make "specific information readily accessible." The general information section includes such topics as the use of timed release preparations, the use of drugs during pregnancy, dosage recommendations, drug interactions, etc. Then follow specific types of drugs such as cardiac drugs, antihypertensive drugs, antibiotic drugs, vitamins, hypocholesteremic agents, regulators of water and electrolyte metabolism, nutrients, antirheumatic agents, sedatives, hypnotics and many others. Each type of drug is dealt with in a chapter, which in turn has a preliminary generalized statement about the drugs under discussion, adverse reactions and precautions, etc. Then the chapter goes on to examine specific drugs, their indications, contraindications, dosages, dose forms, etc. It is interesting that certain of the drugs have no "usual dosage" mentioned. At any rate the book says under usual dosage "not recommended." Two such drugs, for example, are Percodan® and Zactirin®. In other instances the explanation will state "no dose is safe" or "no dosage regimen is rational." In these cases it is the Council's opinion that "no reason is evident why these particular drugs should ever be prescribed."

This rather large-sized book has large type and large sub-headings and is, therefore, easy to read, and together with the index helps one get the information he desires quickly. It is the opinion of this writer that this volume is to be welcomed in that it combines material from three other publications into one volume. It also helps the practicing physician, whatever his specialty, find out quickly what the AMA's opinion is of a particular drug or product. It, therefore, like its predecessors, is a volume which should be in the libraries of all practicing physicians. It does not supplement such other volumes as CURRENT THERAPY in that the latter gives opinions of various authors as to symptoms and signs and treatment, and disease processes. Anyone prescribing medication, certainly the general practitioner and the internist, should have both of these books in their library.—DANIEL A. GLOMSET, M.D.

JOURNAL EDITORS CONFER

In September your managing editor and scientific editor were the guests of the State Medical Journal Advertising Bureau at its workshop meeting in the unique city of New Orleans. First, I must say it was a treat to be away from the office for a couple of days, in addition to making my first visit to this historic city by the Mississippi.

Every other year the Bureau convenes a meeting of the editors of member journals to review problems associated with the publication of state medical journals. Much of the business is centered about the advertising revenue which maintains the journals. Discussions concern matters of printing, methods of obtaining income from advertising, postage rates, and other such business factors. It was gratifying to hear the advertising agencies, as well as the pharmaceutical manufacturers, acknowledge that state journals are most valuable to them and that they are receiving increasingly more favorable consideration for advertising messages. The practicing physician is given high praise for facing the realities of the use, efficacy and importance of drugs in his individual practice.

While Mr. Don Neumann attended sessions with other managing editors, I was able to confer with the scientific editors. Our problem nation-wide is one of producing journals which are useful and informative, worthy of the investment made by the sponsoring medical society. What constitutes suitable editorial material to bring reader satisfaction? What type of continuing features have definite appeal? Is there need for news notes about ancillary groups? How should the advertising pages be placed in the make-up of the book? Are bibliographies necessary, especially when they are lengthy with numerous citations? Are book reviews a valuable part of the journal? These questions are foremost in the minds of the scientific editors. Of course, the conference was not designed to be a decision-making confrontation—but discussions were lively and very informative. Many ideas were presented and it is hoped your editor may profit from this experience in a continuing effort to make *your journal* better with each issue.—M.E.A.

THE DOCTOR'S BUSINESS

Establish A Written Personnel Policy

LARRY E. LEAVERTON
Des Moines

CONTROLS IN THE AREAS of wages and fringe benefits make it prudent for even the small medical office with a few employees to have established personnel policies. Whether one agrees or disagrees with the necessity or need for controls, we encourage a specific written personnel policy.

Many medical office problems are related to Personnel Administration. To practice efficiently physicians must employ the best possible medical assistants. To attract and retain this type of employee, they must have written personnel policies so both employer and employee know exactly where they stand, this prevents misunderstandings.

Most personnel problems stem from misunderstandings and faulty communications and contribute to the high employee turnover in many medical offices.

What should go in a personnel policy? The written policy need not be lengthy but it should include these basic points:

Starting salary—probationary period, pay periods, frequency of performance review. A one-to-three month trial period is commonly used. If the employee is discharged or leaves during this period, no severance pay is granted.

Working hours—hours office must be covered, lunch periods, days off.

Vacations—two weeks after one year is normal in this area. Additional weeks for senior key employees are becoming common. Vacation periods should be specified so the office can be covered at all times.

Sick leave—one day per month is the usual rate after six months, with accumulation to a maximum of 20 working days. Sick leave should be as the name implies and not considered extra time off. Employees should not be paid for unused sick leave.

Paid holidays—in our section of the country, six holidays are most common—New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas. Some offices will give additional days or half days at Christmas or Easter. Under normal conditions a flexible policy on extra time is preferred, but under a wage control system this must be handled with caution.

Overtime—is not covered by law at the present time in all but the large volume offices. Compensating time is usually given for excess time.

Personal appearance—*are uniforms required?* Who pays for them? Neatness and good general appearance should be stressed.

Retirement Plan—if your office has a Self Employed Retirement Plan, deferred profit sharing or pension plan, or group insurance, the benefits and details such as eligibility should be covered.

Termination—Two weeks notice should be required after the probationary period for employer and employee. Two weeks salary may be given by the employer in lieu of notice.

Miscellaneous benefits—free or discounted medical care by the employer for the employee and her immediate family is fairly common. As this would not apply to services by another physician, this could cause problems depending on the medical specialty involved. An alternate fringe employee benefit is paid medical or health insurance which permits them to go elsewhere for medical services if they desire. Some offices are adopting policies on payment or partial payment of dues and expenses to the employee's professional organizations. Policy on time off for funerals, jury duty, etc., is specified in a complete personnel policy manual.

In addition to the category of employee benefits, matters of personnel policy regarding confidential information, release of information, conduct, the doctor's wishes on dress, etc. can be included.

Fringe benefits not recognized by many employees are Social Security and Unemployment Tax paid by the employer which at present amount to 5.2% and 3.2%.

A good procedure is to retain a signed copy of your personnel policy and give one to the employee.

Mr. Leaverton is Director of Reseach and Development for Professional Management Midwest.

American Association of Medical Assistants

State of Iowa, Inc.

CERTIFICATION

Congratulations to Marcine Sanders who earned the title of Certified Medical Assistant in the Administrative Exam this June. Marcine is secretary to Erling Larson, M.D., and E. A. Motto, M.D. She has worked for the Davenport internists 12 years. Her duties include bookkeeping, insurance claims and all of the doctors' dictation. Marcine is currently President-elect of the American Association of Medical Assistants, State of Iowa, Inc.

The names of 169 successful examinees have been announced by the American Association of Medical Assistants. The June examinations were held at 42 testing centers. Of the 169 certificates earned, 77 were clinical certifications, 52 administrative and 40 dual. Nine of the individuals earned a CMA in a second category, while 160 were certified for the first time.

Certification represents a significant professional attainment and denotes broad mastery of AAMA's standards. It may be earned in either the clinical or administrative categories, or both. The examination for dual certification covers medical terminology, anatomy and physiology, human relations, medical ethics and law, office skills, accounting, examination room techniques and laboratory orientation. The certification program was developed in 1961 and the first exam was given in 1963. Merck, Sharp and Dohme has helped support the program annually since 1962.

The AAMA Certifying Board honored the new CMA's at a dinner November 10, as part of the 15th annual convention in Atlanta. Certificates and pins were issued at that time.

ELIGIBILITY

Administration

Associate degree in medical assisting or equivalent
and
One year experience in an administrative capacity.
Or
High school graduation or equivalent
and
Three years in an administrative capacity.

Clinical

Associate degree in medical assisting or equivalent
and
One year experience in a clinical capacity.
Or
High school graduation or equivalent
and
Three years in a clinical capacity.

Dual

Associate degree in medical assisting or equivalent
and
One year in an administrative capacity and one year in a clinical capacity.
Or
High school graduation or equivalent
and
Two years in an administrative capacity and two years in a clinical capacity.

In addition to the preceding requirements, an applicant must have six months of continuous employment by, or under the supervision of, a physician licensed to practice medicine. This employment must have been during the 24 months prior to February 1 (deadline for application). The application must be signed by the physician-employer. Membership in the AAMA is not a requirement for certification testing.

PURPOSES

The purposes of the certification program are:

(1) To help physicians identify those qualified as top-level medical assistants, administrative and/or clinical;

(2) To establish professional standards and goals for medical assistants;

(3) To prepare complete information relative to certification and education programs and requirements for distribution to colleges, secondary schools and interested persons;

(4) To prepare and administer an annual examination;

(5) To certify those who successfully complete the examination.

CONTENT OF EXAMINATION

Section 1: Medical Terminology, Anatomy, and Physiology.

Section 2: Personal Adjustment and Human Relations: Oral Communications; Medical Ethics and Etiquette.

Section 3: Medical Law and Economics.

Section 4: Office Skills; Secretarial and Administrative Procedures: Written Communications.

Section 5: Accounting, Credits and Collections; Records, Medical and Non-Medical.

Section 6: Examination Room Techniques; Sterilization Procedures; Care of Equipment.

Section 7: Laboratory Orientation (Urinalysis; Hematology; Bacteriology; Immunology and Injections; X-ray; Electrocardiography; Physiotherapy).

CERTIFICATION REQUIREMENTS

Candidates for Medical Assistant, Administrative, must successfully pass Sections 1, 2, 3, 4 and 5.

Candidates for Medical Assistant, Clinical, must successfully pass Sections 1, 2, 3, 6 and 7.

Candidates for Dual Certification must successfully pass all sections.

MAKING APPLICATION

It is the responsibility of each candidate (either new or retake) to obtain the application and supply all information requested thereon.

Request application packet from AAMA's executive office: Chairman, Certifying Board, American Association of Medical Assistants, 200 East Ohio Street, Chicago, Illinois 60611.

One certification packet is mailed free to each request and contains the following material: Certification Brochure; Rx for All Busy Physicians Brochure; Study Outline including a list of Reference Books; List of Tentative Test Centers; List of AAMA materials available to CMA applicants and Application blank.

Applications may be submitted at any time, and early mailing is encouraged. Applications must be received by February 1 in order to be considered for the current year.

* * *

TERMINOLOGY QUIZ

I. Match the number of the definitions in Column A with the words in B.

A	B
1. complete removal of part	——*saprophyte*
2. organism living on dead matter	——*extirpation*
3. increase in severity of a symptom	——*aptyalism*
4. undulant fever	——*prosthesis*
5. broken or splintered bone fracture	——*brucellosis*
6. lack of saliva in the mouth	——*exacerbation*
7. an artificial part	——*comminuted*

II. Match the word element and the translation in the following columns:

Word Element	Translation
1. micro-	——*scanty, few*
2. ortho-	——*middle*
3. oligo-	——*small*
4. meso-	——*straight, correct*
5. -cele	——*tumor, swelling*

ANSWERS TO ABOVE: I: 2, 1, 6, 7, 4, 3, 5
II: 3, 4, 1, 2, 5

* * *

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THE JOURNAL *Book Shelf*

Book Reviews

THE HAND, by *Lee Milford*, M.D. (St. Louis, C. V. Mosby Company, 1971, $19.50).

This book first appeared as a Chapter on Surgery of the Hand in the 4th edition of Campbell's OPERATIVE ORTHOPEDICS. This chapter of 175 pages now appears as a textbook of 282 pages which includes much new material. The written text itself has been lengthened and many new drawings, photographs and X-ray reproductions have been added.

This reviewer has had the pleasure of visiting Dr. Lee Milford's operating rooms and surgical clinics in Memphis. The high quality of hand surgery observed there is reflected in this new textbook, which is neither too long nor too short for ready reference to all phases of surgery of the hand. New developments during the past 10 years are included.

Milford's THE HAND is enthusiastically recommended, and should be consulted whenever special problems in hand surgery are encountered. This medium sized, beautiful new text should be in the library of all hospitals where hand surgery is done.—*Julian M. Bruner,* M.D.

HANDBOOK OF OBSTETRICS AND GYNECOLOGY. Fourth Edition, ed. by *Ralph C. Benson,* M.D. (Los Altos, California, Lange Medical Publications, 1971, $6.50).

This fourth edition of a HANDBOOK OF OBSTETRICS AND GYNECOLOGY by *Ralph C. Benson,* M.D., has been completely revised.

As in the past it very thoroughly encompasses the entire field of obstetrics and gynecology in outline form. This covers the clinical findings with signs and symptoms, including usual laboratory results of all the major conditions seen in obstetrics and gynecology. The differential diagnosis and the various methods of treatment are thoroughly covered. The text also contains normal values of both blood chemistry and hematology.

Although it is done in rather fine print, making it difficult to read for any period of time, the busy practitioner, both generalist and specialist, will find this little book a most convenient source of information.—*C. W. Seibert,* M.D.

MODERN TREATMENT, VOL. 7, NO. 6, MANAGEMENT OF ESOPHAGEAL DISEASE, ed. by *Theodore M. Bayless,* M.D. (New York, Harper & Row, Inc., 1970, $20 per year).

A great deal has been written about the treatment of esophageal disease over the past decade. Current thought is stated concisely and succinctly in this volume and should be of critical interest to clinicians involved in the care of the upper gastrointestinal tract.

There is a refreshing and healthy dichotomy of approaches to various problems. For example: Haller and Andrews argue in favor of a conservative treatment of corrosive burns of the esophagus. After the diagnosis is made by esophagoscopy, steroids are administered for 3 weeks. At the end of that time, cinefluoroscopy is done. If significant stricture is apparent, dilatation is begun. If stricture is not present, the patient is followed monthly in an ENT clinic for one year. Johnson and Lukash apply the traditional aggressive method. On the first day, daily dilatations are started and continued for four weeks to prevent stricture formation. Apparently the treatment of choice for achalasia (cardiospasm) at Johns Hopkins Hospital is pneumatic dilatation. The group at Mayo Clinic argue equally persuasively for the esophagomyotomy described by Heller in 1913.

Three chapters constitute required reading for devotees of hiatal hernia repair. The surgical treatment of esophageal reflux is discussed in adequate detail. If the reader found any fault, it might merely be the brevity of the volume. The subject could have filled 1,000 pages or more without danger of redundancy. However, references are plentiful.

Finally, I would be remiss if I did not bow to Gabriel F. Tucker, who certainly at least shares the mantle of Chevalier Jackson, the father of modern bronchoesophogology. Dr. Tucker's chapter on foreign bodies is interesting but unfortunately is only a brief introduction to the fascinating subject.—*James P. Gould,* M.D.

CODE FIVE, by *Frank G. Slaughter,* M.D. (Garden City, N. Y., Doubleday & Co., 1971, $5.95).

Again Doctor Slaughter has produced an interesting, easy moving novel—this time centered around the Emergency Room of St. Luke's Hospital where Dr. Jed Tyler returns after a tragic tour with the army in Viet Nam. Coaxed by a chaplain friend to return to the hospital where he served his internship, Dr. Tyler finds frustration, embezzlement, and love, as well as himself, as he becomes involved in emergency surgery, occupational disease, desperate divorce and concern for his own future in the midst of a deteriorating hospital in a ghetto area.—*M. E. Alberts,* M.D.

SYNOPSIS OF PEDIATRICS, Third Edition. *J. G. Hughes,* M.D. (St. Louis, C. V. Mosby Company, 1971, $14.50).

This synopsis, retaining the same format as the preceding editions, consists of 1,113 pages of brief, well-written discussions of many pediatric subjects. Some changes and revisions have been made, e.g., a new chapter on genetic counseling. Though not a complete pediatric text, for quick reference this work remains at the top of the list.—*M. E. Alberts,* M.D.

Woman's Auxiliary News

Iowa Had Full Representation at Workshop

Six officers and committee chairmen represented the Woman's Auxiliary to the Iowa Medical Society at the Fall Workshop in Minneapolis on October 14 and 15.

Coming directly from the Conference for Presidents and Presidents-elect held in Chicago were Mrs. P. H. Tenney and Mrs. R. L. Wicks. They were joined in Minneapolis by Mrs. M. D. Hayden, Membership; Mrs. R. M. Perkins, AMA-ERF; Mrs. J. L. Kehoe, Publications, and Mrs. J. F. Veverka, substituting for Mrs. J. L. Beattie, Legislation.

National officers and designated representatives of the 12 states in the North Central Region spent two days learning, listening, speaking and discussing the relevant issues of Auxiliary. Presiding, with her customary wit and warmth, at the combined sessions was Mrs. Chester Young, North Central Regional Vice President. Many of you will remember her as the national representative at our state meeting in April.

Mrs. Robert F. Beckley, National President-elect, brought greetings to the (almost) 100 assembled women, from our national president. She stressed the importance of evaluating, during this anniversary year, what has been accomplished by the Auxiliary in the past 50 years and what should be achieved in the future. The First Vice-president, Mrs. Willard C. Scrivner, chaired the successful workshop. In speaking of its goals, Mrs. Scrivner stated that few things are more important than transmitting to state and county auxiliaries the genuine enthusiasm which exists, as well as the information which is provided.

The REAL WORK in workshop was done in small discussion groups at morning and afternoon sessions of both days. The exchange of ideas with counterparts from other states is usually stimulating and in this instance provided excellent stimulus for the solution of problems back home.

The pressing question on the minds of the returning representatives was, HOW will we ever communicate ALL the information and transpose ALL the ideas into action for the state and county auxiliaries?

AS CHRISTMAS Comes to Your House

. . . may all eyes be focused on the real meaning of the Yule season—the birth of our Saviour.

May it also be a time of rebirth for you, a time when your strength is a comfort to the weak, a time when your high spirits are a lift to those in need.

And may you have the time to enjoy the fellowship of new and present friends and to rekindle old associations.

As Christmas comes to your house, it is my privilege This Year, to extend my Season's Greetings to ALL OF YOU out there—

Mrs. Ruth Tenney, *President*

How You Can Help Make Highways Safe

Mrs. D. D. Wilson, Safety and Disaster Preparedness Chairman, attended the Governor's September Conference on Highway Safety. She reported the highlights of the Conference at the October Board meeting.

Did you know one of every 25 drivers you meet on the road at night is a drunk driver?

Suggestions were made to solve the drunk driver problem. They included safe driver training schools and marked cars for drunk driving offenders.

How can we as members of a community help to stimulate highway safety?

—Insist on uniform traffic laws and enforcement throughout the state.

—Elect officials (judges) who will enforce the laws.

—Demand strict law enforcement and an end to the double standard of arrest and punishment.

—Contact the State Department of Public Safety for speakers and programs on highway safety.

—Accord local officials the respect and prestige they deserve.

Is AMPAC Bipartisan?

There are those who think AMPAC, the political arm of the AMA, is a partisan organization.

When Mrs. John M. Chenault, the only woman member of the AMPAC Board of Directors, spoke at the North Central Regional Workshop in October, she stressed the bipartisan aspect of AMPAC.

"State boards have both Democrats and Republicans on them," Mrs. Chenault explained, "and Republicans are not the only candidates to receive PAC support in political campaigns."

It is necessary, however, that a candidate favor a choice in the private practice of medicine or some form of fee-for-service—volunteerism and not compulsion, Mrs. Chenault indicated.

Local physicians or local candidate committees must make the request before AMPAC enters a political campaign. The final decision regarding support rests with the AMPAC Board.

More than one-half of all AMPAC women members are from the North Central Region, according to Mrs. Chenault. ARE YOU ONE OF THEM?

At the October Board Meeting . . .

. . . Mrs. D. D. Wilson introduced Mr. Larry Bair, Water Safety and First Aid Chairman for the Red Cross.

Mr. Bair discussed the Occupational Safety and Health Act which went into effect April 1. This bill provides that a person trained in first aid must be present at all times during working hours in companies where working conditions are considered hazardous for employees.

To provide personnel to perform this work, the Red Cross in Iowa is offering, without charge, to those interested the new **MULTI-MEDIA FIRST AID COURSE** developed by AT&T. The training course can be completed with eight hours of programmed instruction. Completion of four workbooks (with films) and 17 practice sessions qualify an individual for the certificate in standard first aid.

Is YOUR community responding to this need?

Help Form Hospital Auxiliary

Although Clarke County has too few doctors' wives to organize a county auxiliary, they have pooled their efforts and have organized the Clarke County Public Hospital Auxiliary. It has been in existence only a few months. The wives are active on committees, most heading one or two. They hope to open a hospital gift and snack shop soon.

Dollars are a problem, so to raise funds they sponsored an Arts & Crafts Fair November 14 in the 4-H Building at the Clarke County Fair Grounds in Osceola. The sale was from 1 to 8 p.m.

For sale at the Fair were paintings, prints, ceramics, jewelry, sculpture, weaving, candles and other crafts.

ATTENTION!!!

Wanted: Information, pictures about you and your auxiliary for historian's book. ***Please.*** *Send to:*

Mrs. A. C. Richmond
1132 Avenue A
Fort Madison, Iowa 52627

Wanted: Old action snapshots of auxiliary activities, old programs, newspaper clippings or any memorabilia that could be used to illustrate the commemorative issue of MD'S WIFE. The history of auxiliaries and the 50th Anniversary of the AMA Woman's Auxiliary will be the content of the May issue. *Contact:*

Mrs. Joseph Kehoe, Editor
111 McClellan Blvd.
Davenport, Iowa 52803

CHEROKEE MEETING—District IV wives held a recent get-acquainted luncheon in Cherokee. Mrs. Nancy Martin, standing left, is the District IV councilor and arranged the meeting. Also standing are Mrs. Fran Hayden, first vice-president, and State Senator Charlene Conklin. Seated are Mrs. Ralph Wicks, president-elect, and Mrs. Ruth Tenney, president.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. P. H. Tenney, 203 Second Avenue, SW, Independence 50644

President-Elect—Mrs. R. L. Wicks, 523 South Clinton Street, Boone 50036

Recording Secretary—Mrs. G. B. Bristow, 117 South Park

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. J. L. Kehoe, 111 McClellan Blvd., Davenport 52803
Street, Osceola 50213

Personals

Drs. George Pester, Donald Stroy, Robert Westfall, and **Harold Trafton,** recently hosted a two-day meeting of the Iowa Academy of Surgery in Council Bluffs. Forty Iowa surgeons attended the two-day event.

Dr. Christos A. Pissiotis, assistant professor of surgery at The U. of I. College of Medicine, spoke on "Solute Changes in Trauma Shock, Indices of Survival," at an October meeting of "Reanimation Medicale" in Paris, France.

Dr. Krishna A. Birusingh recently joined **Dr. Emmett Mathiasen** in the practice of medicine at Council Bluffs. A 1965 graduate of the University of Nebraska School of Medicine, Dr. Birusingh served his internship at St. Elizabeth's Hospital in Lincoln, Nebraska, completed a three-year surgery residency at Yankton, South Dakota, and a two-year residency at Creighton University in Omaha.

At the American College of Surgeons Clinical Conference in Atlantic City in October, **Dr. Robert E. Condon,** professor and head of surgery at The U. of I. College of Medicine, showed a film he has made which is entitled, "Nissen Fundoplication for Gastroesophageal Reflux."

At a recent meeting of the Cerro Gordo Health Planning Assembly, **Dr. L. W. Swanson,** of Mason City, reported on the experience of health maintenance organizations in providing pre-paid health care in other parts of the country.

Following his retirement, **Dr. P. A. Nierling,** of Cresco, reviewed his records over the years, and selected 12 cases which he considered the rarest. He wrote to the patients involved and invited them to visit him if they ever came to Iowa. Recently, one of the 12 patients, **Fred Stone,** and his family of Oneco, Conn., called on Dr. and Mrs. Nierling. Mr. Stone was gravely wounded in World War II combat and Dr. Nierling operated on him. The operation was performed in Luzon, Philippines in a small schoolhouse converted into an emergency hospital.

Dr. John M. Rhodes, Jr., joined his father, **Dr. John M. Rhodes, Sr.,** in the family practice of medicine on November 1. Dr. Rhodes, Jr., received the M.D. degree at The U. of I. College of Medicine in 1968. Following a year of internship at Kansas City General Hospital, he served two years as a captain in the Army Medical Corps. He spent one year in Viet Nam and the other at William Beaumont General Hospital in El Paso, Texas. He was released from active duty October 12.

The following Iowa physicians have been named diplomates of the American Board of Family Practice—**Dr. J. J. Shurts,** of Eldora, **Dr. James Thomas,** of Sibley and **Dr. Richard D. Berge,** of Aurelia.

Dr. Adrian E. Flatt, professor of orthopedics at The U. of I. College of Medicine, has been invited to serve as William McIlrath Guest Professor in Surgery in Australia next year. A specialist in hand surgery, Dr. Flatt will spend three months at the Royal Prince Alfred Hospital in Sydney. Dr. Flatt came to The U. of I. College of Medicine faculty from England in 1956. He is now directing a five-year research study of the function of the wrist.

Dr. Alan D. Patterson, of Knoxville, was the guest speaker at a recent meeting of the Marion County Professional Nurses Association. Dr. Patterson spoke on the Lions Club Eye Bank and the "Glaucomabile."

Dr. Don G. Bock, of Fort Dodge, lectured at Iowa Central Community College's recent second

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Dr. Robert G. German has joined the staff of Medical Associates in Clinton as a specialist in dermatology. A native of State Center, Dr. German received the M.D. degree at The U. of I. College of Medicine in 1960. He interned at St. Luke's Hospital in Duluth, Minnesota, and practiced in the Marshalltown area from 1961 to 1966. Dr. German served in the Navy from 1966 to 1968 and was stationed at the Naval Air Station, Hospital in Dallas, Texas. He completed his residency in dermatology at The U. of I. in 1971.

The following Iowa physicians were installed as Fellows of the American College of Surgeons during the recent 57th Annual Clinical Congress: **Dr. Jose Martinez**, Council Bluffs; **Dr. James M. Caterine,** Des Moines; **Dr. Denis D. Faber,** Dubuque; **Dr. Hiram J. Leonard,** Estherville; **Dr. Charles E. Hartford,** and **Dr. Kenneth J. Printen,** Iowa City; **Dr. Cesar A. Cardenas**, Lake City; **Dr. Dennis H. Nugent,** Sheldon; **Dr. Don E. Boyle,** Sioux City; and **Dr. Kitti Kalambaheti,** Victor.

Dr. Donald V. Hirst, of Council Bluffs, is the author of an article which appeared in the July, 1971, issue of OBSTETRICS AND GYNECOLOGY entitled, "Contraceptive Tablets and Emotional States."

Dr. Rodolfo R. Llinas, professor of physiology and biophysics at The U. of I. College of Medicine, has been invited to serve on the Neurological Science Research Training A Committee of the National Institute of Neurological Diseases and Stroke, as a special consultant to the director of the National Institutes of Health.

Dr. James Hood, of Cedar Rapids, was recently elected a fellow of the Royal College of Physicians of Edinburgh. Dr. Hood was in Edinburgh for the Investiture ceremonies on November 5-6. He is associated with **Drs. J. Stuart McQuiston, Richard M. Quetsch,** and **Whealen M. Koontz** at Medical Associates in Cedar Rapids.

Dr. Thomas J. Dougherty, a general practitioner, has joined the Davenport Clinic. A native of Cedar Rapids, Dr. Dougherty received the M.D. degree at The U. of I. College of Medicine in 1968. He has just completed two years of service with the Air Force.

Dr. H. O. Stoutland, of Ackley, attended the recent 23rd Annual Scientific Assembly of the American Academy of Family Practice in Miami Beach, Florida.

Dr. Richard H. Winter began the practice of dermatology in Iowa City in September. Dr. Winter, a native of Sioux City, attended Iowa State University and The U. of I. College of Medicine where he received the M.D. degree in 1961. Following his internship at the Kansas University Medical Center, and two years in military service, Dr. Winter practiced general medicine for three years in California. He returned to The U. of I. in 1967 and completed his residency in dermatology in 1970. This past year he has practiced four days a week in Newton and has also provided assistance to the Free Medical Clinic in Iowa City.

Dr. Daryl E. Doorenbos, of LeMars, has been named flight surgeon, 185th Tactical Fighter Group, Iowa Air National Guard in Sioux City.

Dr. Doorenbos departed in October for three months of medical training at Brooks Air Force Base in Texas. He is associated with **Drs. Donald Faber** and **Lee Marven** in LeMars. **Dr. Jon F. Wubbena** has also been assigned to the 185th as a general medical officer. Dr. Wubbena is a 1969 graduate of the University of Nebraska and practices medicine in Rock Rapids.

Dr. Roy Overton, a Des Moines physician, was the guest speaker at the October meeting of the Chariton Woman's Club. Dr. Overton spoke on drug abuse.

Dr. Frank A. DeSandre has become associated with **Dr. Albert J. Mintzer** in the practice of obstetrics and gynecology in Des Moines. Dr. DeSandre has been in the Air Force the last two years, most recently at Dyess Air Force Base, Abilene, Texas. He is a graduate of the University of Illinois Medical School. He interned at Cook County Hospital, Chicago, and took his residency at St. Luke's Presbyterian Hospital, Chicago.

Dr. J. C. Timmerman, an Iowa City dermatologist, was elected president of the Iowa Dermatological Society at the group's annual meeting. **Dr. William Kelley,** of Waterloo, was elected vice-president, and **Dr. Richard Zuehlke,** of Iowa City, secretary-treasurer.

Dr. Dale A. Harding, an Eagle Grove physician, discussed, "Recognition of Hypoglycemia and Schizophrenic Symptoms from the Viewpoint of the General Practitioner," at a recent meeting of the Iowa Schizophrenia Association.

At the annual meeting of the Hoover Health Council, **Dr. John Tyrrell,** of Manchester, was named president-elect and **Dr. Earl DeShaw,** of Monticello, was honored for his service as president this past year. **Dr. Walter Kopsa,** of Tipton, was cited for serving as the organization's first president in 1970.

A lecture by **Dr. L. H. Prewitt,** of Ottumwa, entitled, "Diagnosis and Treatment of Ocular Allergy," has been requested for publication in the MEDICAL TRIBUNE. Dr. Prewitt delivered the lecture at the annual meeting of the American Society of Otolaryngology and Ophthalmology. The MEDICAL TRIBUNE is published world wide and Dr. Prewitt's article has been selected for the German edition. The Ottumwa physician has been an instructor at meetings of the American Society of Ophthalmologic and Otolaryngologic Allergy for the past 15 years.

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Dr. Floyd Jones, of Osceola, will begin the practice of medicine in Shenandoah on or about July 1, 1972. Dr. Jones is presently completing his internship at Iowa Methodist Hospital in Des Moines.

Dr. Byron Peterson, a Keokuk radiologist, was guest speaker at the annual meeting of the Van Buren American Cancer Society.

Drs. E. Z. Kjenaas, E. L. Wiemers, and **Gerald P. Johnston,** all staff members of the Mental Health Institute in Cherokee, recently participated in a Medico-Legal Conference held at the Institute.

Dr. R. S. Jaggard, of Oelwein, was named president-elect of the Association of American Physicians and Surgeons at the recent AAPS annual meeting in St. Louis.

Dr. George L. Baker, Assistant Dean for Medical Student Affairs at The U. of I. College of Medicine, was a recent guest speaker at Luther College in Decorah. Dr. Baker's talk was entitled, "Don't Interfere With the Lifeline," and was sponsored by Luther's Lecture and Fine Arts Committee, the American Medical Association

and the Iowa Medical Society. Dr. Baker also discussed career opportunities in medicine and paramedical areas with interested students.

Dr. Jean S. Lepoidevin, of Cedar Falls, **Dr. Richard C. Mitchell,** of Waterloo, and **Dr. B. R. Withers,** of Waukee, recently attended a postgraduate course on the care of high-risk newborn babies at the University of Colorado Medical Center in Denver.

Dr. Terry Briggs, a resident physician at The U. of I. College of Medicine, is co-winner of the Prize Award for best paper presented by a resident or junior fellow at the recent District VI meeting of the American College of Obstetricians and Gynecologists in Madison, Wisconsin.

Dr. W. D. (Shorty) Paul, of Iowa City, has retired from his position as team physician for The University of Iowa athletic teams. Dr. Paul will be succeeded by **Dr. Harry Feldick,** a Buffalo Center physician for the past 20 years, and a graduate of The U. of I. College of Medicine. Dr. Paul will continue to serve as a consultant. He has been U. of I. team physician since 1939.

Dr. Frank R. Richmond, Sr., a Fort Madison physician who started his 51st year of medical practice in June, was specially recognized at the Fort Madison High School Homecoming football game this fall. Dr. Richmond was an outstanding football player at FMHS and ranked near the top of his class scholastically. He served for many years as the FMHS team physician. His son, **Dr. Frank R. Richmond, Jr.,** is now team physician.

Dr. W. H. Bower, of Grinnell, was the featured speaker at a recent meeting of the Grinnell Pre-School Child Study Club. Dr. Bower showed slides and discussed cancer in women.

Dr. Jay R. Miller, of Wellman, attended the International Medical Convention for General Practitioners at Innsbruch, Austria. While in Europe, Dr. and Mrs. Miller visited various historical sites and major cities.

Dr. Edward L. Jacobs, of Marshalltown, was guest speaker at a recent meeting of the Mothers of Twins Club in Marshalltown. Dr. Jacobs answered questions on the problems of raising twins.

Dr. Nicholas G. Nonas, of Mason City, recently began a 24-month tour of active duty with the U. S. Air Force. Dr. Nonas was called in the June physician draft. Dr. Nonas will be stationed for 12 months in Taegu, Korea. A 1970 graduate of The U. of I. College of Medicine, Dr. Nonas interned at St. Luke's Hospital in Denver, Colorado.

Dr. A. J. Herlitzka, a Mason City surgeon, was principal speaker at a recent Mason City Ostomy Education meeting. Dr. Herlitzka spoke on "Why Ostomies," and the "Design and Function of the Digestive System."

Dr. J. F. Fellows has become associated with **Drs. F. E. Thornton** and **D. W. Blair,** Des Moines orthopedic surgeons. A graduate of The U. of I. College of Medicine, Dr. Fellows served his internship at the Los Angeles County Hospital and his orthopedic residency at the Mayo Clinic in Rochester, Minnesota.

Dr. Paul Ferguson, of Lake City, recently participated in a course on Community and Public Health Nursing Care at Denison. Dr. Ferguson spoke on "What Is Good Maternity Care," and "Family Planning." The course was sponsored by the State Department of Health.

At a luncheon marking the tenth anniversary of the Des Moines City Health Department's Child Study Center, **Dr. Everett A. Nitzke,** a Des Moines pediatrician, participated in a panel discussion on the services of the Center.

Dr. James L. Shreffler, a Waterloo anesthesiologist, was guest speaker at a recent meeting of the Operating Room Nurses Association of North Central Iowa in Waterloo.

DEATHS

Dr. W. B. Phillips, 74, longtime Montezuma physician, died October 15 at St. Luke's Hospital in Cedar Rapids. A 1927 graduate of The U. of I. College of Medicine, Dr. Phillips interned at Salt Lake City, Utah, and began his practice of medicine in What Cheer in 1928. In 1935, he entered postgraduate study in dermatology at New York and specialized in dermatology at Davenport from 1935 to 1940 when he moved to Montezuma. Dr. Phillips was a World War I veteran, a member of the Masonic Lodge, American Legion, Za-ga-Zig Shrine and Elks; and a past president of the Poweshiek and Keokuk County Medical Societies.

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